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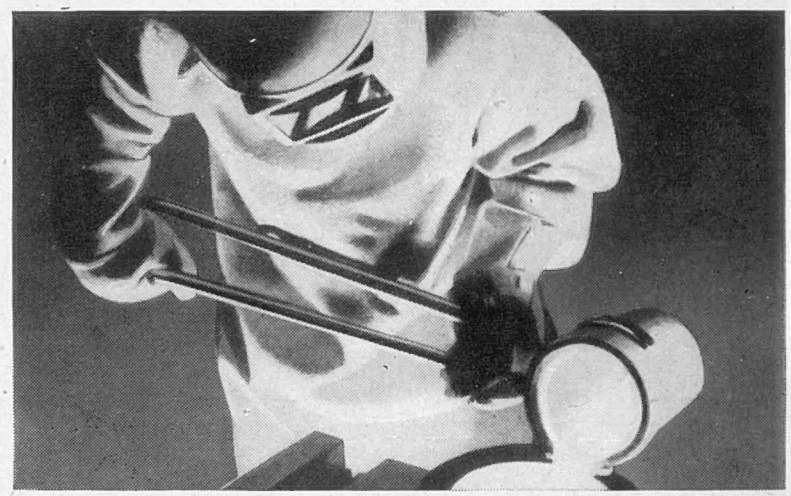

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Volume CLXXX No. 2356 The SPHERE, London, March 17, 1945

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

THE LATEST SECRET WEAPON OF THE ALLIES: THE ROCKET-FIRING SHERMAN TANKS WHICH HAVE BEEN IN ACTION ON THE WESTERN FRONT. This is the newest application by the Allies of the rocket principle in warfare: its effect on the enemy has been shattering

The new rocket barrage has its roots in research work carried out before and during the present war: this led, first, to the anti-aircraft rocket, the airborne rocket, and then to the naval rocket barrage such as those used so successfully in the landings on Sicily, at Anzio and in Normandy. Mounted on a Sherman tank, the new weapon has proved one of the most devastating of the war. Sixty 4·5-in. rocket tubes, fired independently or in salvoes, are mounted on the turret of each Sherman. Each shell fired is comparable with that of the 100-lb. shell from a 5·5-in. gun. When the rocket barrage has been discharged, the rack is automatically jettisoned and the tank continues into action unencumbered, the rack being salvaged later and loaded by a follow-up crew. The new weapon has been used with great effect to give close support to bridge-building engineers, and has also dealt effectively with encircled enemy rearguards. In addition to the rocket tank, British and Canadian troops have also been using rocket projectors, or "guns," constructed on the same principle. These have been used in groups of twelve, each projector having thirty-two barrels: this gives a concentrated and devastating fire-power comparable with that of 200 5·5-in. guns. But, whereas an artillery battery of this size would need crews totalling nearly 3,000 men, the rocket battery needs fewer than 200

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A WAR NEWSLETTER —No. 289

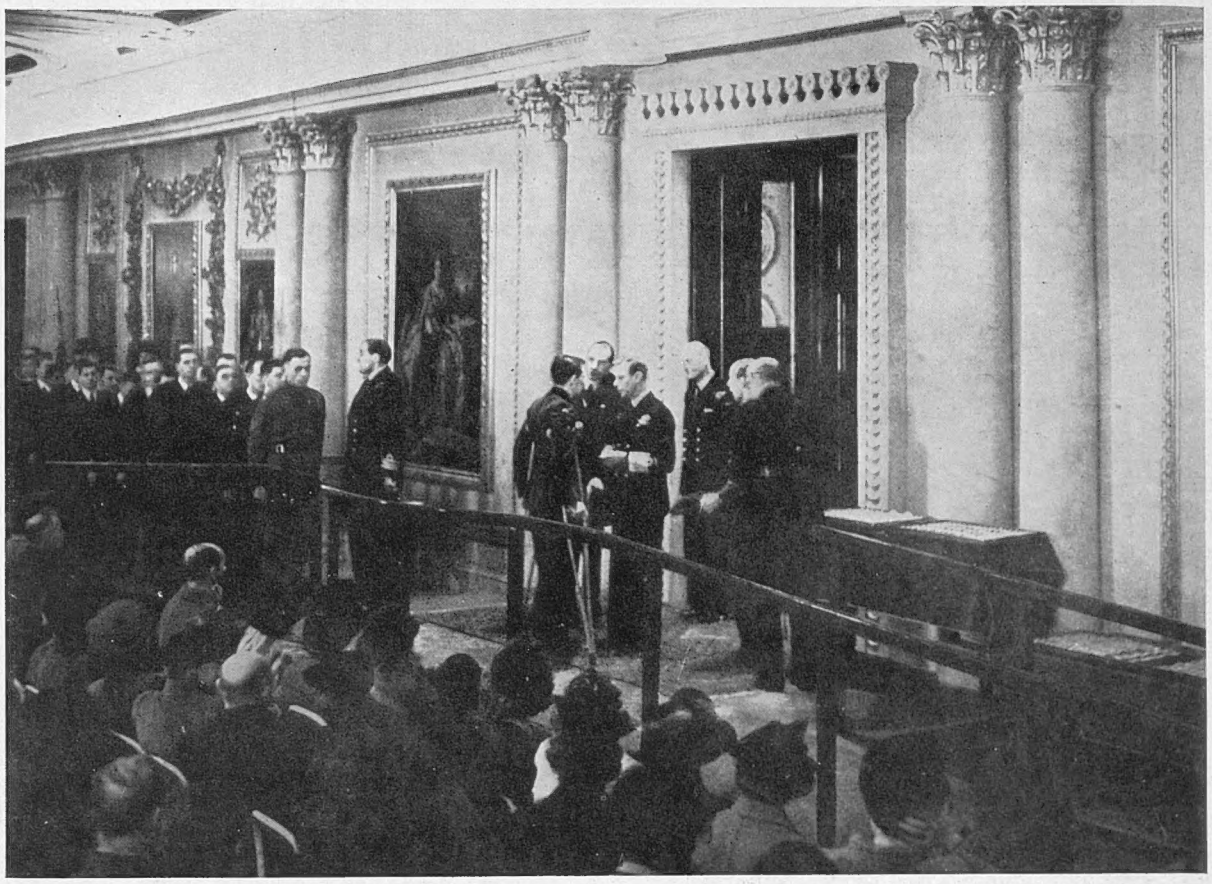
1, NEW OXFORD STREET, W.C.1.

First Across the Rhine.—

Far more quickly than we anticipated, the Americans crossed over the Rhine on March 7 between Cologne and Coblenz, using the mined, but still unblown, railway bridge at Remagen. Some companies snatched the god-sent chance, and two hours later the bridge had been converted for use by wheeled and tracked vehicles; for the staff had prepared for this 100—1 possibility. Soon enough, against trifling opposition, the American First Army had built up a tolerable bridge-head and seized high ground beyond the crossing. The watch on the Rhine has run down at last. The Rhine maidens were caught sleeping. Someone had blundered. This great event is of psychological importance. It does not imply that the great river line is turned all along its length. It remains, elsewhere than at Remagen, the formidable barrier it was and will be. Already the extension of the bridgehead is being strongly resisted. The crossing is proof of the efficiency of the American Army staff and of the dash and initiative of the American Army. It is significant proof of a not less favourable fact. It could not have been achieved so easily and so swiftly unless the organisation of the German Army in the West was, at the moment, almost disintegrated. Goebbels, in his current weekly wail, admitted that the gang was well aware of this chaos and no longer hoped to restore order or to reorganise a continuous front for defence West and East. In the lamentable situation now facing Hitler, the Berlin-Baltic and Hungarian fronts clearly divide Priority No. 1. The Rühr is largely written off with some of the Saar and Silesia, and a long-term policy has yielded to day-to-day, stop-gap measures. The unconquerable Wehrmacht has become a hotch-potch of desperate or despairing roving bands. That seems to be the chief significance of the Remagen crossing. It is significant enough in all conscience, whether or no the shrewd stroke be exploited swiftly or by slow and painful stages. The Nazis still have shots in their locker. The U-boat menace is by no means trivial, especially in view of the present tax on our merchant marine, and it is unpleasantly near home also. And the Nazis will probably cling on to North Holland as long as they possibly can, in the hope of continuing, and increasing by new inventions, the V bombardment of Britain. But for the possibilities of these V weapons, military expediency must by now cry out for the evacuation of the occupation troops in the Low Country. But Hitler's intuitions always direct him to hold on too long, and to rob the Peter of Necessity to pay the Paul of Vanity or Hope. But for these intuitions, experts of strategy would all forecast the liberation of the rest of Holland at an early date.

Fighting Britain's Battles.

—It is comforting to realise that, just now again, the American public is being made aware that the British Army sometimes takes a hand in the great game of beating Hitler and even makes its "small, important" contributions to the victories on many fronts. Thanks partly to General Eisenhower's generous heart, and despite the dust-clouds of much of the American Press, all over the North American continent the bare truth is once more filtering through. British arms are helping Canada's effort; British arms, in Italy as well as in the Rhineland, are playing a vital, and too inconspicuous, role in American and Russian victories. And farther east, an inconspicuous British Army is helping MacArthur in his triumphs against the Japanese. It would be too bold to add that this inconspicuous army has been writing the classic text-book on the modern science of war. It is odd to speculate on the astronomical figures spent on British Army "publicity" all these years and then to assess the results of the advertising campaign in the Press columns of our Allies East and West. But now a small dividend has been declared.



THE KING PRESENTS MEDALS AT BUCKINGHAM PALACE. The scene inside the Palace photographed for the first time. Recently, the King held an Investiture at which he decorated officers and men of the Services. For the first time photographs of the ceremony were taken. The one above shows the King presenting the C.G.M. to Flight-Sergeant Edward Dunans, Bomber Command. Behind the King, from left to right, are Lord Clarendon, Captain Sir Harold Campbell, R.N. (retd.), Lieut.-Colonel the Hon. Sir Piers Legh and Sir Harry Stockley. More than fifty men received the Military Medal; one of them, Corporal Gerald Murray of the Devonshire Regiment, was from the 14th Army in Burma

A Tidy Job.

—In the great jigsaw of major strategy, the final plan for the overthrow of Nazism, the northern section of Montgomery's sector of the enormous front from Holland to the Baltic was the first to be credited with having completed its job in the first phase—the phase to the Rhine. This Canadian-British front had least publicity and in some ways the most difficult slogging match, in this semi-final. Let us put on record that they have done a very nasty job to admiration and tidied up a very difficult, dangerous and obscure situation. They have decimated, if not liquidated, many of the Nazis' still efficient divisions and linked up with the American Ninth on their right in a series of brilliantly-planned manœuvres which carried Montgomery's Allied armies to every point of the compass, east, south, north and even west. In this phase 50,000 Germans, representing the bones and beak of many invaluable divisions, have been put in the bag (many more to come), a valuable section of the Rhine and its great industrial cities and areas has been neutralised, where not overrun and occupied. Montgomery likes tidy jobs. His armies never achieved a tidier one, and seldom a more difficult and elaborate. All glory and honour to him and his armies, American, British, Canadian. They have written decisive deeds on the page of history, and more such are soon to come. The Allies, as well as the Germans, must be looking over their shoulders at that part of Holland which is still enslaved, and towards Scandinavia, and speculating on the curiously-sprawling German fortress as it is traced to-day, with its fangs reaching out to England in the form of V-bombs. How long can their stranglehold on those vast territories continue when the "pocket" of Nazi resistance begins to fill in quite another part of the wood? It will not be easy to "govern" Norway from Berchtesgaden. . . . Blow succeeds blow in an unending stream of good news. The Germans love tidiness also. But there is not much in German organisation which can be so described to-day. The evidence crowds in at last that in every department of organisation on the home and battle fronts, chaos is breaking in and order and planning and morale are breaking down. The breaking-point is nearly reached, if the final tidying-up prove long and tiresome. Among the Allies there are several tidy fellows to do the job, with every variety of broom.

Enemy No. 1.

—The patience of Eisenhower and Montgomery during the winter "lull" made possible perhaps the swift and sweeping victory of the western Rhine bank, with economy in Allied lives. A decisive battle, magnificently planned and executed at a cost relatively light judged by its importance. Every delay, it may be argued, whether caused by weather, by dam-floods, by Rundstedt's thrust, or other cause, proved a blessing in disguise for the Allies. All the same, Time is Enemy No. 1, and no Allied leader is in any doubt of that. The business must be finished, because the slightest breathing-space now granted the Nazis will bring forth the fruits of years of scientific planning and invention in new weapons of frightfulness which will at least prolong the war; new U-boat devices, better V weapons, new forms of air raids. We cannot afford these delays. We have openly told the enemy that our shipping was never before so inadequate for the strain imposed on it. We have widely announced the dismantling of many of our air-raid precautions. We encouraged the Nazi scientists to try once more by such methods to play for a compromise, and we simply cannot afford to give them time to try. That is why we are battering down every building in Germany, destroying every smallest artery of communciation, raining fire and death and chaos on Germany non-stop and whatever the conditions, hitting him here, there and everywhere. The measure of this terrific effort to keep the Hun on the run to worse-confound his obvious confusion, is clear proof that at last all concerned realise that the first and last enemy is Time. Time has been Hitler's best ally and the Allies' worst enemy. We have yet to experience an all-out assault, exactly timed to the highest intensity, on two fronts; and for that match-winner we cannot afford to wait even till April.

The New Terror.

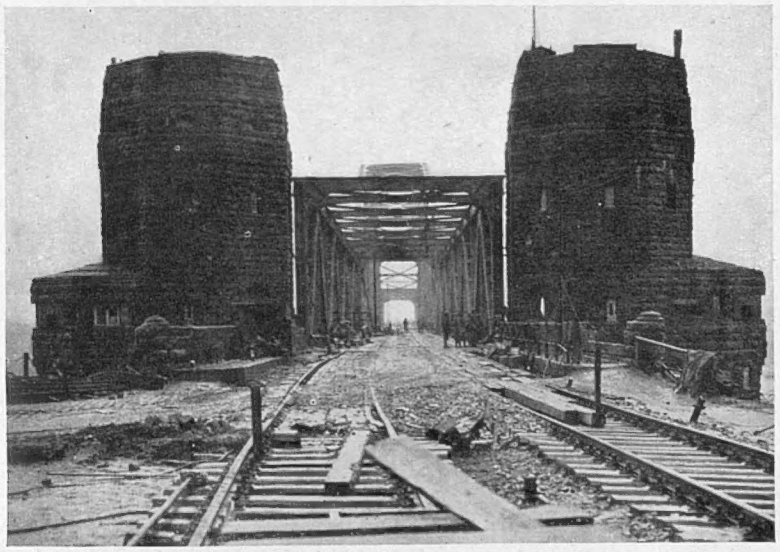
—It was odd that when the "terror" of Nazi enslavement—call it acute anxiety—first began to fade from our hearts we did not switch over at once to the menace next on the list of Terrors, enslavement domestic. It was too soon to appreciate the new menace. We had in the hour of danger voluntarily surrendered our liberties, and that surrender was still a military necessity. To a lesser extent, it still is, still will be for years. But not in the form and on the scale it has reached to-day, or with the knobs on which Ministers promise for to-morrow. Thank God, at long last people in every walk, of every political opinion, are beginning to open their eyes to the implications of the Bureaucratic tyranny and enslavement which are to be the price of our new "freedoms" after the war. A thousand little Hitlers for one Big Hitler, a thousand daily requisitions for one sweeping grab. Whatever Government obtains power, there is no doubt of its intentions. In every field of human activity Bureaucracy is to retain its hold over our lives; its inquisitions, its regulations, its multiple forms—all are to survive and to increase. Only so can we be organised for the impossible Utopia which is to be financed out of bankrupt stock. Look back on these last drab years. Does any day pass when the small householder is not compelled for his mere existence to obtain, to fill up, to submit, a form of application for this or that necessity, to plead *in forma pauperis* and as a suspect, to some little Hitler? All these forms will remain. A hundred more (and even less intelligible) are to be added in order that we may be safely enslaved to freedom from want, etc. If we live twenty years into the Peace, under whatsoever Government, we shall never break free from Bureaucracy's stranglehold, not so much as by one form scrapped. Nothing can save us now but realisation of this new Terror—and realisation is not enough. Action must follow it. The next election must be fought on the issue: *Enslavement to Bureaucracy or NO.* At present every party in the field is pledged to enslavement. There is that one faint gleam of tardy light: go where I will, I see signs that the nation is at last waking up to the truth.

THE OLD STAGER.

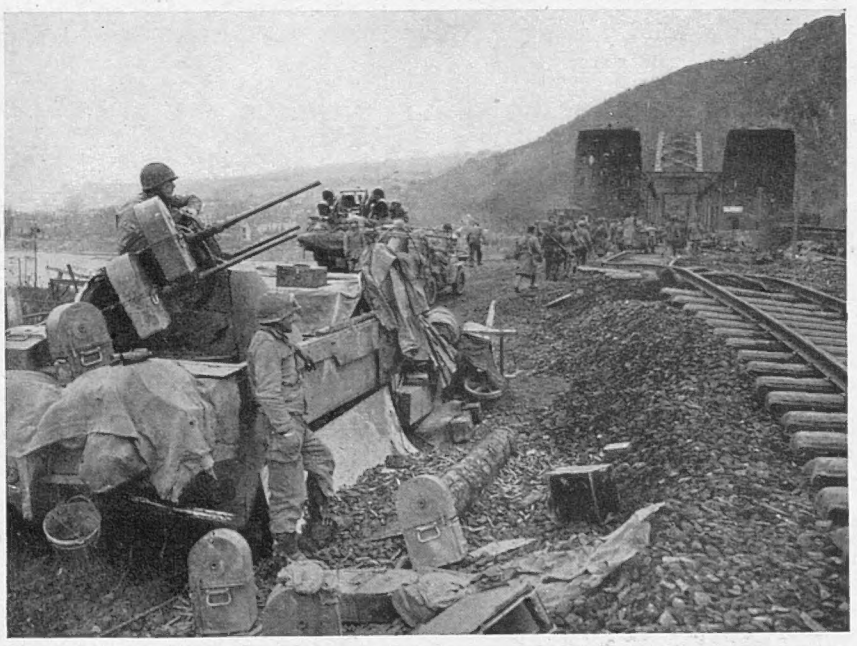
BRIDGEHEAD OVER THE RHINE

Scenes at Remagen, where the German Railway Bridge was Captured Intact by the U.S. First Army

THIS PICTURE, TAKEN FROM A LOW-FLYING SPOTTER PLANE, SHOWS THE REMAGEN BRIDGE SOON AFTER ITS CAPTURE. General Hodges at once began pouring across it men and materials into the bridgehead established on the east (or German) bank of the Rhine. The smoke in the background and the turbulent water of the river seen in this picture emphasise the reports that the bridge is being subjected to heavy shell-fire by the enemy. Across the hills in the background lies the way into the heart of Germany



A CLOSE-UP VIEW OF THE BRIDGE: It was captured intact on Wednesday, March 7, ten minutes before the Germans had planned to blow it up. Very soon, Allied troops and equipment were streaming across



AS AMERICAN TANKS AND SUPPLIES POUR ACROSS THE RHINE, anti-aircraft guns are set up in the foreground to protect the bridge against German counter-attacks

***On left*—LONG LINES OF HALF-TRACK VEHICLES wait to cross the Remagen railway bridge, captured intact by the 9th Armoured Division of the First U.S. Army**

After the great Allied drive west of the River Rhine, instead of halting on the west bank of that river, the U.S. First Army were fortunate enough to secure an immediate bridgehead on the east bank, owing to the capture intact of the Remagen rail bridge between Coblenz and Bonn. The enemy had intended to blow it up at 4 p.m. on Wednesday, March 7: but by 3.50 p.m. American troops had crossed close on the enemy's heels—and the bridge was in Allied hands. Since then, General Hodges had been swiftly "building up": troops and supplies have streamed over the bridge until finally a secure footing twelve miles wide by three deep had been established. Having realised his great error, the enemy soon began shelling the bridge in an effort to destroy it. But to hit—and put out of action—a large structure by shell-fire is not an easy task

THE LANDING on IWO-JIMA

How the Invasion was Carried Out: the First Dramatic Pictures

(See also pages 336-7 of this issue)

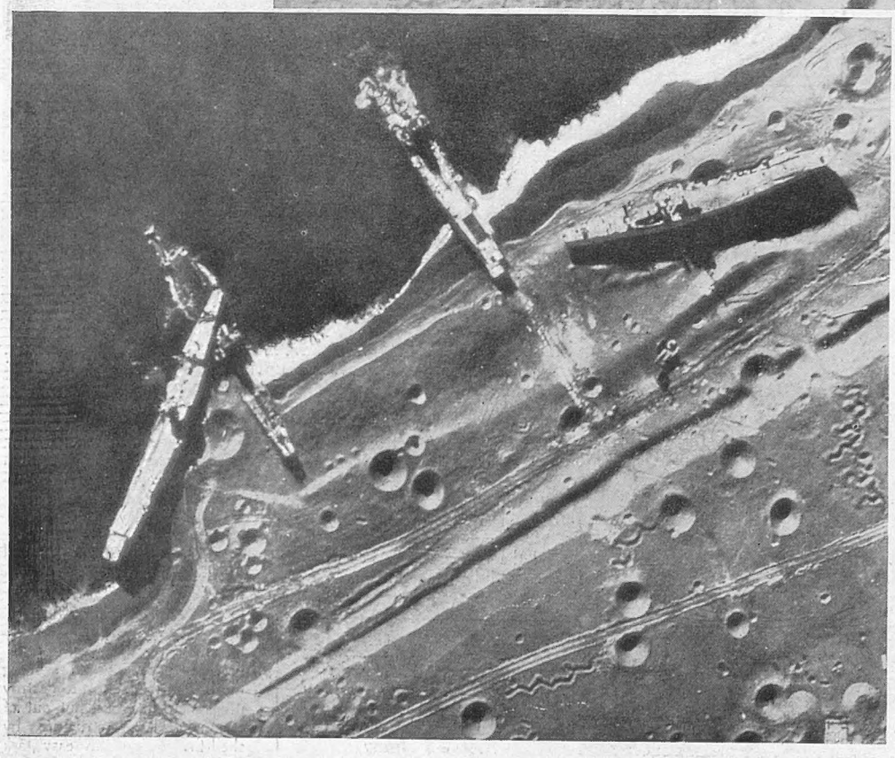
It was on the morning of February 19 that Admiral Nimitz announced from Guam that two divisions of American Marines had landed on Iwo-Jima, the volcanic island only 750 miles from Tokyo. These pictures (and others given on pages 336-337 of this issue) are amongst the first to show how the landings were actually made.

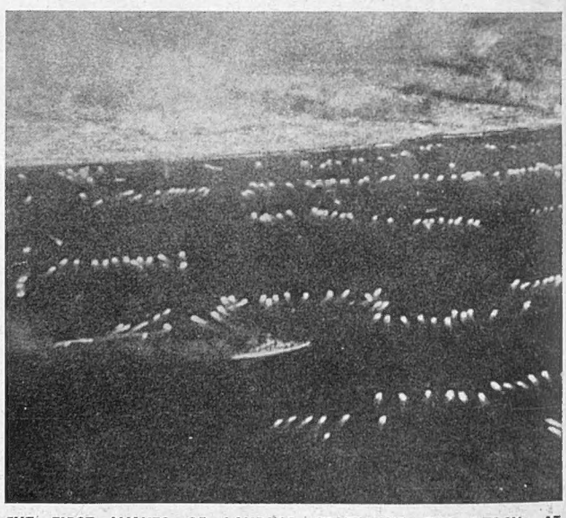
The large picture on the right shows the beachhead which was secured on the eight-square-mile island, and the landing craft, which brought the Marines to the spot, disgorging their cargoes of supplies and equipment. This operation was unhampered by shellfire from the Jap guns on the extinct volcano in the background, as these had already been silenced in the first assaults up the slopes by the invaders.

It has been estimated that the Jap garrison on the island numbered some 10,000 to 12,000 men: the Americans were estimated to have landed 40,000 Marines to wipe them out.

THE FLAT BEACH AT WHICH THE U.S. MARINES WERE PUT ASHORE FROM THEIR LANDING CRAFT. In the background is Mount Suribachi, captured from the Japs at the southern tip of the island after a bitter struggle

***Below* — BATTERED JAP SHIPS LINE THE BEACH OF THE ISLAND:** These enemy landing ships — blasted by bombs from American aircraft — had been beached in an attempt to salvage their remains. In this the Japs were frustrated, as the craft fell into American hands. An anti-tank ditch runs through the big bomb-craters: trenches and rifle-pits dug by the Japs look like curly lines at the bottom and right of the picture





THE FIRST WAVES OF LANDING CRAFT HIT THE BEACH AT IWO-JIMA. An American battleship (in the centre of the picture) provides heavy artillery support. Behind, lies the island wreathed in smoke as American shells burst amongst the Japanese defenders on shore

THE ENTRY INTO COLOGNE

First Pictures of One of the Most Heavily Bombed Cities in Germany, After Its Capture

THE AREA SURROUNDING THE FAMOUS CATHEDRAL: but all around is chaos, utter and complete. The twin spires of the latter still remain, as it fell, with no attempt made Much of the rubble and girdering remains by the Germans to remove it

THE ENTRANCE TO THE GREAT HOHENZOLLERN BRIDGE across the River Rhine, after it had been blown up. An American tank and jeep are patrolling in the foreground

ANOTHER RHINE BRIDGE IS DESTROYED BY THE GERMANS: The spans of the Hindenburg Bridge after they had been collapsed by enemy demolition charges

THESE WERE NAZI ANTI-AIRCRAFT GUNS, stationed in the streets of Cologne to counter the Allied bombers. They were knocked out by the tanks of the 3rd Armoured Division, as the first American troops entered the city

A SCENE OF DEVASTATION NEAR THE HINDENBURG BRIDGE—the smashed equestrian statue of Wilhelm I. In the foreground, American soldiers interrogate German civilians

IN THE MAIN RAILWAY STATION: The indescribable chaos around the chief booking office, caused during the heavy Allied air attacks on the city

When the Americans entered Cologne, for the first time they were able to gauge the extent of the havoc caused by concentrated bombing over a long period on a great city of the very first magnitude. The havoc is almost indescribable. Apart from the famous cathedral in the city's heart, Cologne has been flattened to the ground—only the walls of a few buildings remaining upright. Londoners have experienced much bombing, and have witnessed the considerable damage caused by the Germans in certain areas; but the people of Cologne must have endured far, far more than anything ever experienced here. The only way in which they managed to survive was by living, working and shopping underground. These pictures were taken within a few hours of the arrival of Allied troops in the great Rhine city

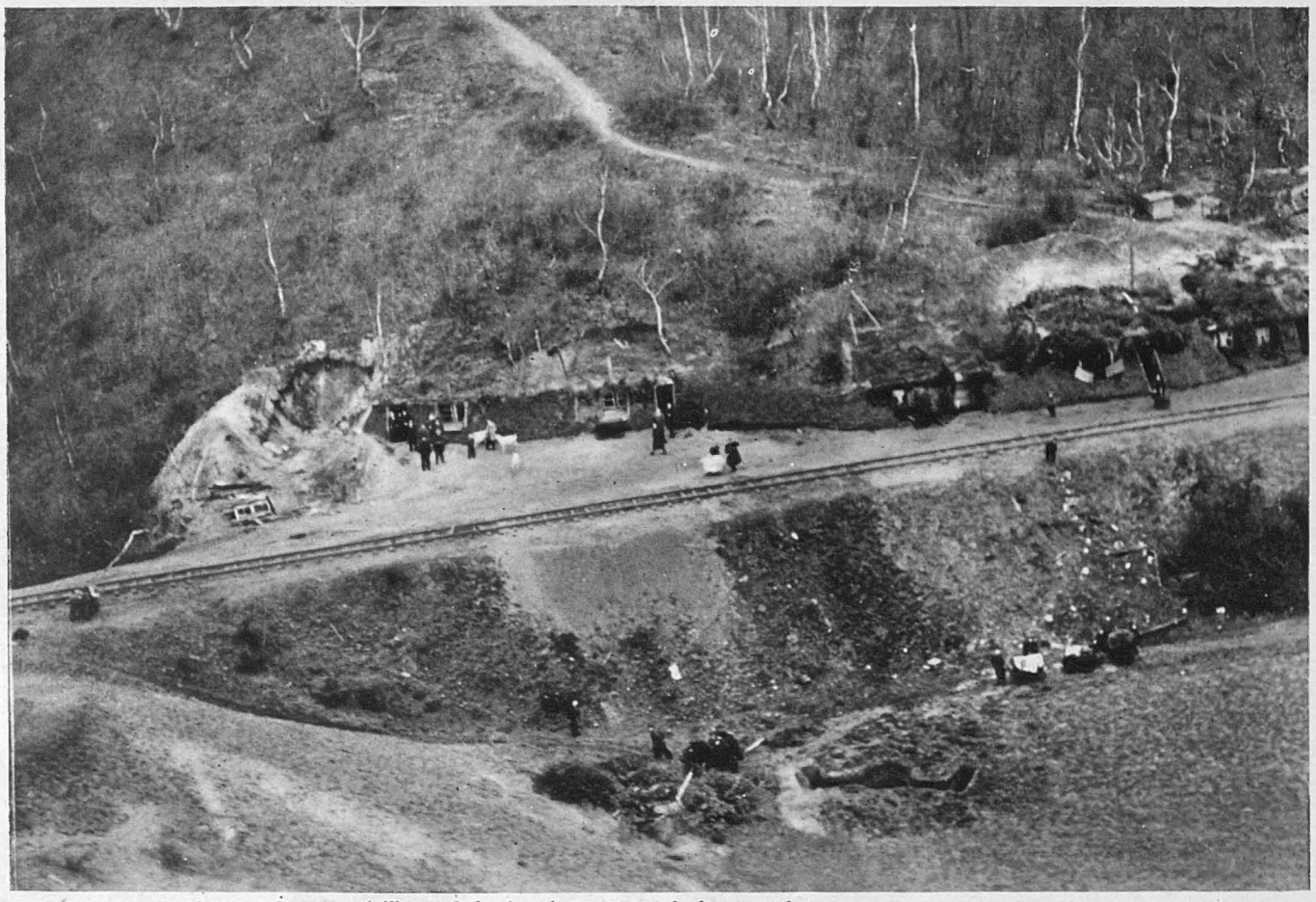
The GERMAN CIVILIAN in DEFEAT

Some Informative Pictures Taken During the Allied Advance Through the Rhineland

The answer to the great question, "What will the German civilian population do when their own country is invaded?", is now being given as British and American troops press onward through towns famous in German history and commerce. Many of them, of course, have retreated with their armies deeper into Germany; but many, defying Hitler's orders, have remained behind and are now being concentrated by Allied officers.

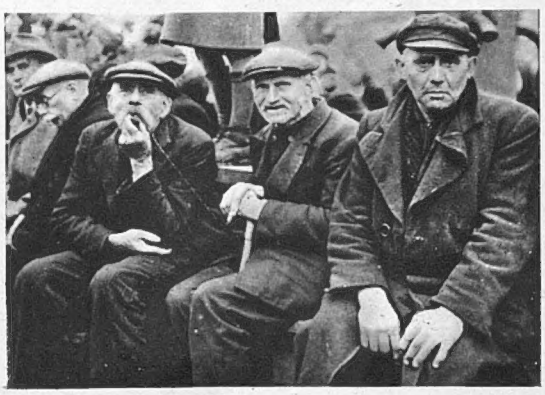
What has befallen them is something which has never yet occurred within the memory of living Germans—the invasion of their Fatherland by hostile armies. And this after intense bombing and shelling, battles fought in their own villages and towns, and the destruction of their homes.

How they have reacted to these fierce realities of war, the pictures reproduced here partially explain.



JUST OUTSIDE COLOGNE: German civilians sheltering in caves and dug-outs in the woods while the city comes under Allied shell-fire. It is only by this means that many of the citizens have survived the heavy bombing raids carried out over a period of many months by the R.A.F.

THE CITIZENS OF RHEYDT COME OUT OF THEIR SHELTERS to greet the Americans: The morale of the remaining citizens in the great industrial centres of Rheydt and Munchen-Gladbach was very low. They looked dazed and dull, and all displayed white flags, white handkerchiefs—anything white, to make doubly sure of their safety. Here some of them are pictured at the entrance to an underground shelter in Joseph Goebbels' Street in Rheydt, where the Propaganda Minister was born



OLD GERMAN MEN wait for permission to return to their homes in a Rhine village

AN ELDERLY GERMAN WOMAN who obeyed General Eisenhower's orders

GERMAN CIVILIANS COME FORWARD TO SURRENDER IN TRIER with hands held above their heads: Many of the civilians obeyed orders and fled before the Allied advance, but a number remained behind to surrender to the Allied troops as they entered the historic city. The shelling here was very severe: these men could only have survived by hiding in the cellars and shelters. As soon as the German troops had left, they came out and gave themselves up

AFTER HAVING BEEN ROUNDED UP, Germans sit in their street near their homes under an armed escort

When General Simpson's army swept like a steamroller through the German towns west of the Rhine, some civilians, stricken with fear, fled in the train of their panicky troops and endangered themselves by exposure to both Allied and enemy shell-fire. In an effort to protect the lives of such enemy civilians, General Eisenhower has issued instructions to the women, children and the aged to "stay put" and not try to flee east along roads already jammed with Nazi soldiers now being bombarded by the Allies

ON THE ROADS OF THE RHINELAND TO-DAY, AS GERMAN REFUGEES SEEK TO FLEE FROM THE BATTLE-ZONES WHILST ALLIED TROOPS AND ARMOUR MOVE UP FOR THE PURSUIT OF THE BROKEN NAZI ARMIES: The refugees pile all their belongings on to hand-carts, and even into prams, and stream away from the bombardments—never smiling, and staring blankly at the soldiers who have been forbidden to "fraternise" with them. They are reported by war correspondents to express neither hatred nor pleasure as they trudge to points indicated to them by the Allied authorities—*Drawing by W. G. Whitaker*

GERMAN HOMES ARE LOOTED BY GERMANS—an expressive picture from Calcar: The German civilian in the battle-zone has no scruples, even when it comes to looting the houses evacuated by his own people. If caught by the Military Police, the excuse is usually that the house belongs to him. One German woman caught recently is known to have made this claim at least six times. Here a German is even taking a tin bath, to carry his spoils, as he enters an abandoned house in the Calcar area

IN THE CAPTURED TOWN OF BITBURG: Fewer than 100 out of the 5,000 or 6,000 inhabitants of this town remained, to emerge only after the U.S. Third Army had entered this important junction. They had remained in their cellars during the fighting: after the American entry, they were marched off to an area which had been specially set aside for the civilian population

WAR AND THE GERMAN CIVILIAN: The perambulator is well laden as the Nazis evacuate their homes in the battle area near Calcar, where British and Canadian troops pushed eastwards towards the Rhine

GERMAN REFUGEES FROM THE FRONT-LINE AREAS have been crowding into the village of Bedburg, near Cleve. Here, Military Police are checking the identity of some of the women as they arrive

AMERICANS QUESTION GERMAN CIVILIANS during mopping-up operations in Holstum. When these women were asked why they had not left with the other civilians, they replied, "We had no safe place to go to, and we knew we had nothing to fear from you"

GERMANY'S FOREIGN LABOUR-SLAVES CANNOT STRIKE

How Much Real Help can the Liberating Armies Expect from the Millions of Foreign Workers now Labouring in the Reich ?

By FERDINAND TUOHY

"SHE has led a Trojan horse into her own gates, and there it will be awaiting the future. A few million defranchised men will be inconvenient guests when home security becomes a paramount problem for a tottering Nazi administration."

With the above, from 1943, taken as a text, let us now bury another illusion.

It is this : that the liberating armies are going to get much practical help from the millions of foreign labour-slaves congregated inside Germany. Yet, at one time or another, most of us fell for the idea of "the largest Fifth Column in the world being established inside Germany." Let us see how it went.

" In their desperate need for man-power to keep Hitler's war machine going, the Germans have imported (5, 6, 7, 8, 9, 10, 11, 12) million workers from all over Europe. The means whereby these workers are brought to Germany are becoming increasingly terroristic. In Russia, the entire male and female population between the ages of fourteen and fifty-five has been forcibly deported to the Reich. In the Balkans, the Germans also take whom they want, more or less by force—and 20 to 30 per cent. are strong women. In Western and Northern Europe, they are more circumspect. Economic pressure is the main instrument of compulsion.

" Thus, the Germans force Danes to go to Germany by abstaining from making coal available for Danish factories. Dutch, Belgian and French workers are similarly forced into unemployment by the closing down of factories, after which the alternatives facing them are starvation or working in Germany. The various quislings, such as Laval, refuse to give ration-books if these required men and women hang back from service in the Reich. The result is that all these millions of people leave homes and families with great bitterness in their hearts, and the treatment they subsequently receive in Germany only increases it. They get poor food, work long hours for little pay, have almost no facilities for recreation, get only the most dangerous and distasteful work, and live in overcrowded barracks.

" All these labour-slaves are hostile to the Nazis. They are minutely watched by the Gestapo, but, as their numbers mount, this supervision grows to be more difficult. Before they left their own countries, a large proportion of the victims were briefed by underground organisations—briefed in sabotage, in contacting and forming factory cells with German workers, in sending back information. One day the strained social structure of Germany will crack. And on that day the foreign workers in Germany will come into their own. They will constitute the advance guard of the armies of liberation, the most effective Fifth Column the world has ever known, thus turning Hitler's most original weapon against its inceptor."

One makes the less apology for reproducing this kind of wishful thinking because the Allied Supreme Commander seems to have still been sharing it up to a very short while ago. Has not General Eisenhower on more than one occasion made direct appeal to the foreign labour-slaves, telling them that arms are being conveyed to them and that their hour for action has come ? The last time such " instructions " were broadcast from Shaef was only a few weeks ago.

So far as we know from published reports, the only evidence of foreign labour-slaves being of use in military operations comes from Koniev's front and refers to a mere handful of a thousand Russians who escaped from Dresden during the terrible February air raids. These men hid in the surrounding forests and, gradually making their way eastwards towards the advancing Russian tide of battle, carried out a whole series of partisan attacks on the Germans, together with wrecking, or at least, so they reported upon making contact with Koniev's advance guard. And that is the sum total to date of the much-expected striking within Germany by Hitler's millions of foreign labour-slaves. There will, of course, be more in the same line as the process of Nazi disintegration augments. But, revolts of real military consequence are not to be expected on the facts of the case. Nor is there any reason to blame these unfortunate people ; rather to understand them.

For a variety of reasons, physical and moral, the historic Twelve Million are not disposed to revolt, but prefer inactivity until rescued, or—in many cases—just relieved of their jobs.

Theoretically, the foreign labour-conscripts should be capable of playing the merry deuce in a country like Germany, sliding to her doom. They represent a crushing figure in a land of, perhaps, 30,000,000 surviving men, one-third of whom are engaged in fighting the Allies and the majority of the others in holding things together in Germany when they are physically capable. Clearly, if the foreign workers could organise at all, if they could be supplied with arms and food, they could disrupt the entire Nazi rearward system in a matter of days.

If no such organised effort has manifested itself, the explanation must be sought under several heads :

1. There is great absence of homogeneity among these millions. They are made up of too many types. There are prisoners of war working voluntarily in factories and on the land ; there are workers who came forward of their own free will in this and that occupied country ; there are women who went to Germany to be with their menfolk ; there are press-ganged millions. There are the conscripts working together in vast war factories, like real robots, in places " off the map," and there are those working in twos and threes or individually on farms. If, even, these millions had that universal language as link between them, they might have done more. But the majority are tongue-tied, since their masters took good care to mix up the nationalities.

2. Those best placed to launch a revolt are the ones working in masses, and these are kept under murderous, constant menace by Nazi guards. The slightest sign and gas would be only one of several instant counter-measures. Almost the only ones who can and do escape are the isolated workers on farms, and this they usually contrive in the commotion following an air raid. Road labourers also make getaways. But to what end ? They run wild, attacking for weapons and plundering for food, and then German " sanction sections " proceed on man-hunts whose end is inevitably so many killings. No mercy is given.

3. Very many of the foreign workers are hopelessly tired and apathetic after years of Nazi driving. They have been cut off so long from the rest of the world that they have ceased to take an active interest in the war. More than this, they have developed sympathies in adversity for their German bosses when these have been lesser folk out in the countryside or in the smaller, less-watched towns. Many Germans have deliberately treated their " slaves " well against a possible evil day for themselves, hoping that the " slaves " will then speak up for them, and, not unnaturally, this has led to the foreign workers accepting human sympathy where they found it.

4. A higher figure than is generally appreciated are women and, therefore, not given to staging armed revolts.

5. Finally, there is the decisive food question. Such gangs as manage to escape are almost always rounded up in an exhausted state, having had nothing to eat for days. The Germans have got so tight a hold on food stores that no large-scale breaking-out is conceivable without Allied provisioning. This has been turned down by the War Office in the matter of dropping supplies on our prisoner-of-war camps.

" Do they expect us to eat grass ? " said a man, crawling to the safety of Switzerland, having come only from the Stuttgart area.

Just now the Nazis are fixing their attention most keenly on the Anglo-Saxon fraternity and the Russians. They believe that these will try anything giving a sporting chance. In particular, the Nazis are out to prevent any Allied parachuting. They feel that, if they can hinder all liaison between the labour-slaves and the liberating armies, then there is not much to fear until the cataclysmic *finale*.

From expecting concrete military aid from the millions of foreign workers, it would be wiser to expect that Hitler will do his utmost to make them an encumbrance to us. There was a little in that line after the armistice of 1918, when the Germans threw open their prison camps and urged hundreds of thousands of captives towards the Allied armies, where they fetched up weeks afterwards in terrible condition. But nearly all of those were soldiers and could be handled accordingly. In the near future, the tide will not only be six times bigger but will include the most tangled, demoralised mass of mortals imaginable.

The Nazis' unleashing of the Twelve Million is a facet of their general scheme to spread chaos and resultant anarchy through Europe. At this stage, it might be more advisable to go all out on measures calculated to absorb the flood, to nourish and regulate it, rather than build further hopes on the labour-slaves being responsive to orders having a military background, come they from whatever high source.

U.N.R.R.A. has got the job of coping with the human flood, and one will not be unkind about its record over feeding liberated Europe. That affair, which is making encroachments on a rare goodwill and may have political repercussions, is traceable, as we now know, to a badly misplaced optimism as to the end of the war, prevalent in high circles last September. One's hope must be that U.N.R.R.A. will buckle down to its second job with a certain amount of truculence.

"SLAVES" LIBERATED DURING THE ALLIED DRIVE TO THE RHINE : These Russians and Poles had been forced to work for the Germans ; they were found labouring in the town of Nusbaum, but are now on the first stage of their long journey home. They were very self-conscious while being photographed : this they explained by saying that they were not used to being treated in a kindly manner !

THE RUSSIAN PRISONER IN GERMANY who hid in a hole for five months before liberation : Igor Nikolai Galashnikov, age thirty-two, was in the 127th Regiment, Sixth Russian Army, when he was captured by the Germans at Kharkov in May 1942. He was then made to work in a factory at Essen, where he was forced to work in twenty-four-hour stretches, with very little food. He said that, when he got so tired that his work was slowed up, he was beaten by the Germans until finally he fell ill. He left Essen for Duren in May 1943, and from there, with seventy-five other Russian prisoners, he was put to work on a farm at Gereonsweiler. On September 19, 1944, he made a hole in some wheat and hid himself. For food he used to grind grain with his hands, and he went out only at night to find apples and pears. He said he suffered more from the cold than hunger. He then dug himself a hole, when the weather was a little warmer, and it was in this that an American artillery unit found him. All the time he had not shaved or had his hair cut. He was flushed out of his hole and his beard was cut off before the photographer met him. He has a wife, and a daughter aged five. He is now being cared for by the Americans

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

BRITAIN'S NEWEST AIRCRAFT-CARRIER : H.M.S. "IMPLACABLE," which, it has just been announced, is now on active service with the Royal Navy. She was launched by the Queen

A week or two ago it was revealed that the 23,000-ton *Indefatigable* is serving in Far Eastern waters. Now it has further been announced that her sister aircraft-carrier, H.M.S. *Implacable*, is also on active service. Both ships were laid down in 1939, one being built at the Clydebank yard and the other at the Fairfield yard. *Implacable* embodies considerable improvements in her class, but further details of these are still withheld. Since she was launched on the Clyde, the new carrier has operated with vessels of the Home Fleet and has carried out a successful "strike" against enemy shipping off the coast of Norway. One of her first operational missions was against the German battleship *Tirpitz*, when aircraft flown from her flight-deck located and photographed the enemy ship in Tromso Fiord, where she was subsequently bombed and sunk

The NEWEST CARRIER

And Other New Pictures of British Ships of War

LAYING MINES IN ENEMY WATERS : The deadly weapons are finally checked and tested on board the British minelayer "Apollo"

It is estimated that not fewer than 1,000 enemy warships, supply ships and small coastal craft have been sunk or damaged by British mines since the outbreak of war. The actual figure is probably greater than this number. The minelaying campaign has been carried out by minelayers of the Royal Navy, by naval aircraft (some of which operate from carriers), and by aircraft of the Royal Air Force. Operations are planned at the Admiralty and the mines are designed, produced and supplied by the Admiralty.

It is probable, however, that more than 60 per cent. of the reported enemy casualties are due to mines laid by the R.A.F. in enemy waters and chiefly by aircraft of Bomber Command. Other units of the Royal Navy which are taking part in these operations include submarines, destroyers and coastal force minelayers. Personnel engaged in the design, trial, manufacture and supply of the mines also make a vital contribution to the efforts of the minelaying ships and aircraft.

THE COMMANDING OFFICER OF THE "APOLLO," CAPTAIN J. A. GRINDLE, C.B., and the navigating officer on the bridge, as the minelayer approaches enemy waters. To carry out their dangerous task, the vessels must work close in to the hostile coast, at times under the nose of enemy coastal batteries and through minefields laid for defence by the Germans

AN UNUSUAL VIEW OF A BRITISH CRUISER steaming at high speed : H.M.S. "Argonaut," which is now serving with the East Indies Fleet. This cruiser belongs to the Dido class of 5,450 tons. She has a length of 506 ft. and is capable of a speed of 33 knots. Her principal armament consists of ten 5·25 dual-purpose guns, but she also has many smaller weapons. She was built by Cammell Laird and was completed in 1942 as one of a class of eleven

THE RUSSIANS CLOSE IN ON THE LAST GERMAN STRONGHOLDS ON THE RIVER ODER: Soviet heavy guns of the First White Russian Army move westward for their drive on Berlin. They reached positions opposite Frankfurt and Kuestrin

AT THE APPROACHES TO BERLIN: Steel pill-boxes of a German fort captured by the Soviet troops on the plain near the Oder River during the great advance towards the capital

The LATEST PICTURES by RADIO from RUSSIA

—With Two Maps on the Polish Frontier Problem

THE TERRITORY OWNED BY RUSSIA IN THE YEAR 1921 before she was stripped of Finland, Estonia, Latvia, Lithuania, Poland and Bessarabia: Not so very many years ago, Russian territory included vast tracts of which she was stripped after the last war. The areas marked in a dark tone on the above map were all part of Tsarist Russia. So that from the Arctic down to the Black Sea, Russia has surrendered a good deal of her former possessions since the Peace Treaty of 1919. Slight adjustments have been made along the Finnish border, and Russia is also claiming part of Poland; Estonia, Latvia and Lithuania will probably remain independent Soviets

A GIANT FORT captured by Red Army assault troops near the Oder, now surmounted by the Soviet flag

THE ENTRANCE TO A GERMAN FORTIFICATION demolished by Soviet artillery at the approaches to Berlin

AN UNDERGROUND POWER STATION which turned the machinery of the permanent fortifications protecting the line of the Oder. This station and the line of forts it supplied with power were captured in the rapid advance of the Red Army towards the approaches to Berlin. Some of the machinery had been destroyed before the Nazis retreated, but some was discovered to be still intact

ELBING, AFTER IT FELL INTO THE HANDS OF THE RUSSIANS: Severe street-fighting took place in this German town, and in the foreground are the bodies of dead Nazi soldiers

HOW THE "CURZON LINE" CUTS OFF THE EASTERN PART OF THE POLISH KINGDOM. What Russia proposes in connection with the Polish boundary is indicated above. The U.S.S.R. intend to retain the eastern portion, extending their territory up to the line of the Bug: but, also, they intend to keep Lwow, which the Poles are loath to abandon—and this is now a great point of contention between Poles and Russians. The Danzig Corridor, indicated here, will no longer exist after the present war, because Poland is to be recompensed with a large part of former German territory in East Prussia

HOW MOSCOW CELEBRATED ITS CHAIN OF VICTORIES: As the victory salvos are fired in the Russian capital, streaks of fire rocket into the air above the Hotel Moskva. Note that there is no black-out of the street-lighting in Moscow!

ON THE ROADS OF EAST PRUSSIA: Lieut.-General A. S. Fokanov and Colonel I. M. Pashkov speak to Soviet scouts after the reconnaissance group had carried out a successful scouting mission along the German front in the area held by the Second White Russian Army

THE GERMAN DEFENCES OUTSIDE THE TOWN OF NEIDENBURG, which were successfully overcome by the Soviet troops under the command of Colonel-General Vasilyed. The line stretches for miles into the distance

FREED BY THE RAPID ADVANCE OF THE RED ARMY: A Soviet officer (on left) meets a party of French soldiers, captured by the Germans in the year 1940, after they had been liberated from their prison camp in East Prussia

SOVIET SELF-PROPELLED GUNS pass through a German town: A street scene in Neidenburg, as the Russian troops went on to the further capture of Deutsch-Eylau, Osterode and Muelhausen —within a short space of time

THE PRICE OF VICTORY: A COLLISION BETWEEN TWO AMERICAN SUPER-FORTRESSES OVER A JAPANESE AIRCRAFT WORKS during a successful attack near the enemy capital. After the collision, both aircraft were seen to explode in mid-air—*Drawing by Roland Davies*

FLYING OPERATIONS

Over the Pacific and on the West Front

—A Series of Four Special Drawings of Recent Incidents in the War by Air by Roland Davies

The bombing of Japan by American "heavies" coming from Saipan, in the Marianas, is now continuous, and great successes have been scored by the Super-Fortresses. But this has not been achieved without losses: flak from the ground defences, shells from Japanese interceptor planes, and engine failures, have all contributed to bring disaster to some of the American aircraft taking part in the attacks. The drawing given above shows another cause for a recent disaster. In the second attack of two successive days, the target was the Nakajima aircraft factory at Ota, some 40 miles to the north-west of Tokyo. About 100 Super-Fortresses were sent in, and good results were reported later: but fighter opposition was encountered, and four of the big American planes were lost. Of these, two collided over the target and exploded in mid-air. In revenge for these losses, twenty Jap planes were destroyed, nineteen were probably destroyed and twenty-seven were damaged. The raid was launched—like all the other Fortress attacks—from the American air base in the Marianas

LAYING THE "DOOR-MAT" OVER THE BRITISH ARMY IN HOLLAND: Typhoons of the R.A.F. going out for a "carpet-bombing" expedition over the German lines—an operation which brings great satisfaction to the foot-soldiers—*Drawing by Roland Davies*

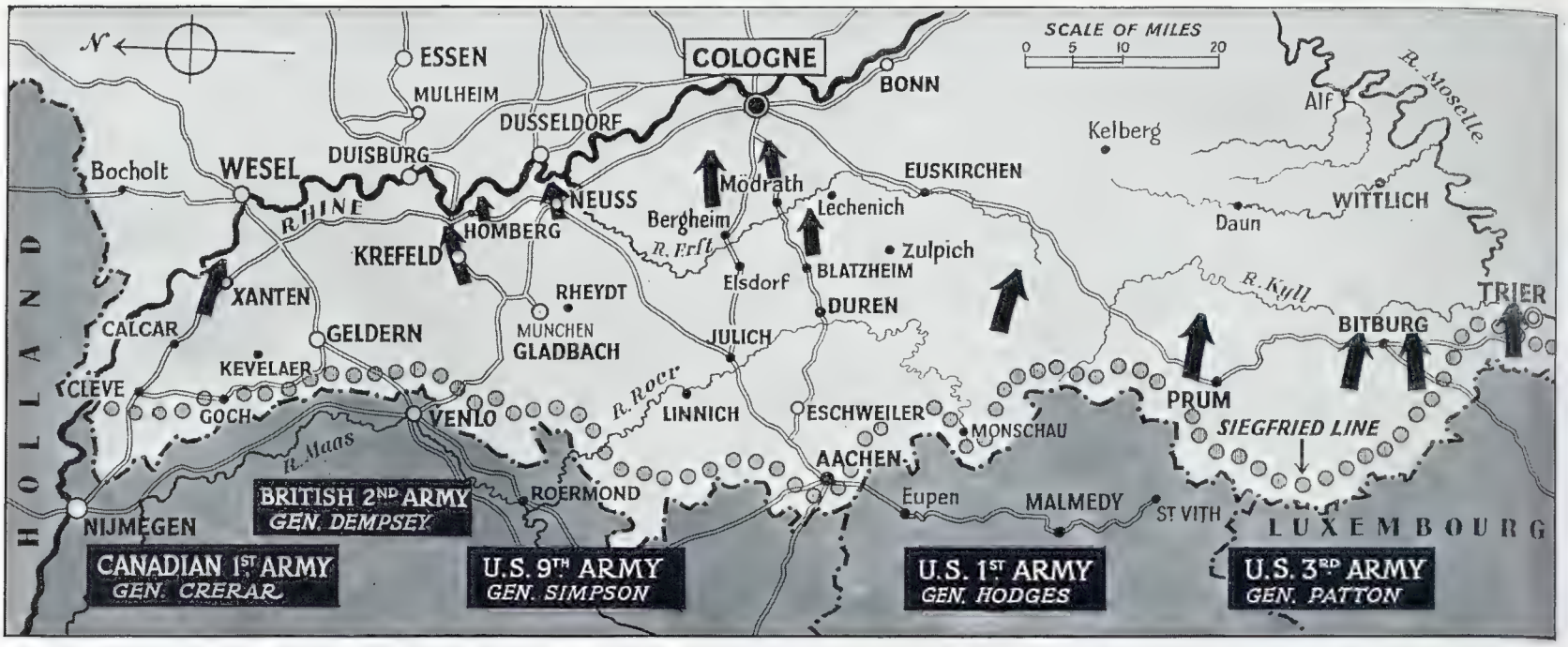
After 200 rocket projectiles, launched by R.A.F. fighter-bombers attacking in support of a recent thrust by the British Army, had saturated a German outpost—a particularly stubborn hedgehog road—British troops marched in and took the place without suffering a single casualty. The Army call this kind of air support "laying down the door-mat with 'Welcome' written all over it," to distinguish it from the "carpeting" of larger areas by medium and heavy bombers

ON BOARD AN AMERICAN AIRCRAFT-CARRIER : MEMBERS OF THE CREW FIGHTING A FIRE AFTER A HELLDIVER HAD CRASHED ON THE FLIGHT-DECK. Burning petrol from the wrecked plane has set fire to a line of parked aircraft—*Drawing by Roland Davies*

An aeroplane landing on the flight-deck of an aircraft-carrier jumped the arrester wires, crashed into the safety barrier on its nose and caused a fire. That is one of the many fire risks for which members of a flight-deck handling party must be prepared. And that is why they are all trained fire-fighters. Any fire must be stopped at once. There are hundreds of gallons of petrol in the tanks of all the aeroplanes on the flight-deck and many thousands more stored in the ship's main tanks. Fire started on a flight-deck is always liable to spread : it is impossible to prevent patches of oil from getting underneath parked aircraft. Fire-fighting appliances are placed at regular intervals along the starboard and port sides of the deck, and wherever the fire starts, the men nearest are responsible for putting it out. An air-crew rescue party is always on duty to release the pilot from a burning aeroplane

AN ALMOST EVERYDAY OCCURRENCE IN THE PACIFIC WARFARE : THE CREW OF AN AMERICAN CARRIER BRING DOWN A JAP PLANE BY GUN-FIRE during an attack whilst flying operations are in progress from the flight-deck—*Drawing by Roland Davies*

As they will not allow their fleet to emerge from harbour to engage the American warships lying round the Philippines and elsewhere, the Japs have to be content with air attack on the big Allied carriers. But the concentrated fire from carriers and other naval vessels is so heavy and concentrated that scores upon scores of Jap aircraft are shot down in flames every time they launch an attack. It will be observed that the man on the left in this picture is wearing an asbestos suit, ready to make a rescue through the flames should an aircraft crash on deck



THE GREAT ALLIED THRUST TO THE LINE OF THE RHINE, FROM NIJMEGEN TO TRIER: How the five great armies—Canadian, British and American—were placed, and how each moved forward to clear the area on the west bank of the river from Cologne to Cleve—*A Special Sphere Map*

THE ADVANCE TO THE RHINE

A Great Co-ordinated Movement and How it was Accomplished by the Allies

—With Special Drawings by Sphere Artists

The great Allied offensive started on Friday, February 23, when the American Ninth and First Armies began the crossing of the Roer, which had held them up for so long. A fierce barrage at 3.30 a.m., from 2,000 guns, preceded the attack by the assault boats, which pushed across the river, still much swollen by the breaking of the dams. It was a difficult crossing. Some boats capsized, others were swept down the stream, but the main force got across, threading their way among the stakes, underwater wire and floating-mines. The engineers were busy putting together bridges over the river, working under fierce fire, which caused many casualties, but did not stop the gallant work. By the end of the first day the bridgehead across the Roer was 22 miles long and 2 miles deep, stretching from Duren to Linnich.

Open country lay between the Roer and the Rhine, main roads to Cologne and Dusseldorf running over the flat land with the River Erft the only obstacle. The Ninth Army held the line from Baal, north of Linnich, to the south of Julich, when the First Army joined on. Julich was quickly taken, the old sixteenth-century citadel, with its massive walls, having been reduced to ruins. By Sunday, February 25, the advance was still going well. Armour and artillery were over the Roer; Duren, a busy industrial town, was taken, and a spirit of excitement had spread through the armies as they found prisoners flowing in.

There were extensive trenches with fortified villages as strong-points, but there were not enough Germans to hold the long line. General Simpson's Ninth Army and General Hodges' First Army pressed on relentlessly, one column pushing on the main road from Julich to Cologne, reaching Elsdorf, 10 miles east of Julich, another pressing to the north from Linnich, towards Munchen-Gladbach, beyond Erkelenz which had been captured. General Hodges reached the Erft River, finding the 9th Panzer Division holding the strong defences there—tank-traps, trenches and pill-boxes—but he forced a crossing near Modrath, and got three bridges established. By this time, February 28, Rundstedt had begun to realise that he was being overwhelmed, and there were preparations for retiring across the Rhine. Diesel-motor barges were seen gathering, some with superstructures for carrying bridges; small craft of all kinds crept along the bank. The enemy could only hope for cloudy, wet weather to enable them to cross unseen by the Allied Air Force.

Meanwhile, at the northern end of the line the Canadians and British under General Crerar were having a tough struggle in the area between the Maas and the Rhine, in the area of Goch and Calcar. Here the enemy was making the stiffest resistance, holding on with fierce tenacity. It became evident that it was the pivot from which the Germans were wheeling back, and it had to be held at all costs. While the Ninth Army was smashing ahead, the British and Canadians had only a slow advance to show. Udem, to the south of Goch was taken on February 27, Calcar was surrounded and by-passed and tanks smashed a way to the Rhine at Grieth, south of Emmerich. But the Hochwald, on the way to Xanten, could not be rushed. The enemy held the railway running through a gap in the forest, and they clung on desperately.

On March 1 it was seen that the German Fifteenth Army which had been holding the Roer, was breaking up, Munchen-Gladbach, a large town on the way to Dusseldorf, was captured, and fighting was going on in Modrath, eight miles from Cologne. This was a mining area, with slag hills standing out above the wet and marshy valley of the Erft. On the same day General Patton's Third Army, which had crossed the Saar four days before, worked through the stiff defences of the Siegfried Line, and then turned north to close on Trier, which was entered at three points. Tanks forced their way through the centre of the city, and reached the southern bridge in time to seize it intact. The Moselle had been crossed and the escape route cut. Trier, the oldest city in Germany, founded by the Romans, had been much damaged; the cathedral had suffered much, but the Roman gateway is unhurt.

After a short "black-out" on news of the Ninth Army, the release came on March 2, with the announcement of the capture of Krefeld, a great industrial city, with engineering works and a great railway centre. Venlo and Roermond, on the Maas, had fallen to the Ninth Army, which pushed on north to Geldern, where they were only 10 miles from the Canadian and British forces. Neuss, a suburb of Dusseldorf, had been entered, thrusting a wedge into the German Fifteenth Army which by now was in full retreat.

ONE OF THE MEANS BY WHICH THE BRITISH PLANS WERE CONCEALED FROM THE ENEMY AFTER THE BIG ADVANCE HAD BEGUN—A SMOKE-SCREEN COVERS THE FORWARD MOVEMENT OF THE INFANTRY. No longer is the screen put up by means of little smoke-pots such as were used in the Western Desert and in Italy: special vehicles have now been built in Allied factories for this purpose. Each of these generates a huge volume of smoke, which is discharged through ten nozzles from each vehicle. When a big operation is in progress, dozens of these smoke-generators are lined up side by side and lay down a screen of great depth and intensity through which our men can move up without coming under enemy observation, thus minimising the casualties—*Drawing by E. G. Lambert***

AT THE NORTHERN "HINGE" OF THE BRITISH LINE, WHERE OPERATIONS DURING THE ADVANCE WERE HAMPERED BY THE BIG FLOODS: The roads themselves were often flooded, and vehicles were only negotiated through them with great difficulty—*Drawing by E. G. Lambert*

Mud and flooded roads and tracks are making the supply lines to the forward troops at the northern "hinge" of the British line very difficult; but with good work by the Royal Engineers and Pioneers, the supplies do get through and the mud and floods are mastered. In some cases, Buffaloes have been used to transport troops and supplies to isolated places. This picture shows the scene on one of the roads between the German border at Beek and the recently-captured town of Cleve: an A.V.R.E. tank (with its distinctive mortar in front) is helping a jeep out of the flooded ditch, while other tanks move up on the left. Note the military policeman on traffic duty on an elevated pedestal at the cross-roads on the right

THE FIRST OPERATION DURING THE ADVANCE TO THE RHINE: THE BUILDING OF BRIDGES ACROSS THE ROER RIVER BY AMERICAN ENGINEERS under very heavy German shell-fire. Infantry and tanks, followed by vehicles, crossed the wide river by this means; as the bridges were destroyed, others were at once run up—*Drawing by W. G. Whitaker*

When the moment for the great assault began, bridges were flung across the swollen Roer by U.S. engineers—foot-bridges as well as heavier bridges for the big tanks and other vehicles supporting the foot-soldiers. All the bridges came under heavy artillery- and mortar-fire and many of them were swept away. The engineers, however, persisted at their task. A score of bridges were finally working across the Roer: as fresh troops passed across, the work of establishing one continuous bridgehead and consolidating it on the farther bank was soon accomplished. Then came the real task of sweeping the enemy clean out of the area from the line of the Roer right up to the west bank of the River Rhine

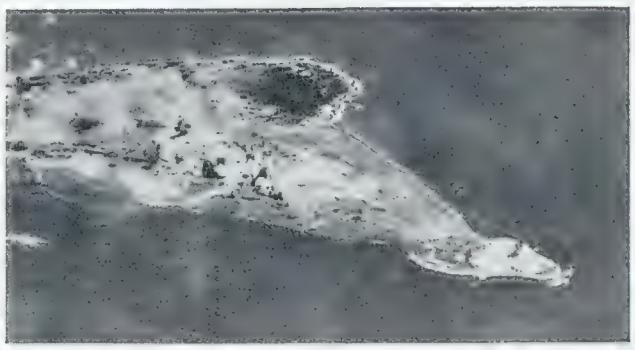
More About IWO-JIMA

Invaded by the Americans on February 19

And the Capture of Corregidor in the Philippines

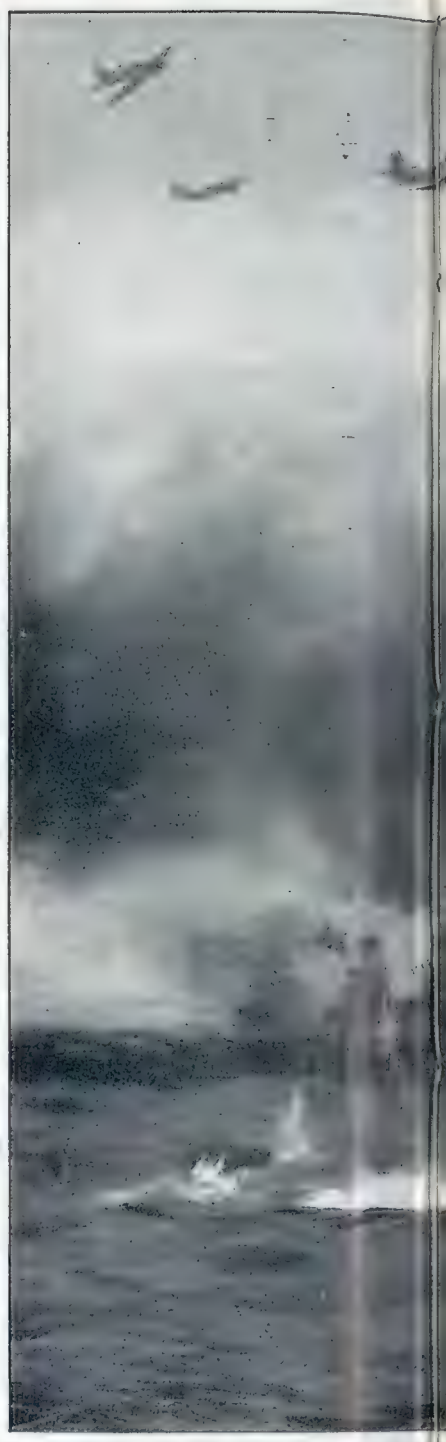
The assault on Iwo-Jima, volcanic island of only 8 square miles, has provided the Americans with their toughest proposition so far in the Pacific war. It was tight-packed with Japs when the Marines went ashore, and for these warriors there can now be no reinforcement from Japan—and no chance of escape. Reproduced on these pages are some of the latest pictures to be received in England since the news of the invasion was announced from the U.S.

PART OF THE GREAT U.S. ARMADA: The scene off Iwo-Jima as preparations were begun for the invasion of the small volcanic island



A VIEW OF THE VOLCANIC TIP OF THE ISLAND: to the right, on the extreme point, is Mount Suribachi, where bitter fighting took place. The actual landing beach is on the far side along the level strip

HOW THE WAY WAS PAVED FOR INVASION: A view made from a carrier-based naval plane, showing how Japanese shipping was blasted at Iwo-Jima in one of the many "strikes" which preceded the landings by the U.S. Marines. The roadways made by the enemy through the thick scrub to defensive points on the island can clearly be seen in this picture



THE SCENE OFF THE ISLAND OF IWO
old battleships, each of which has beer

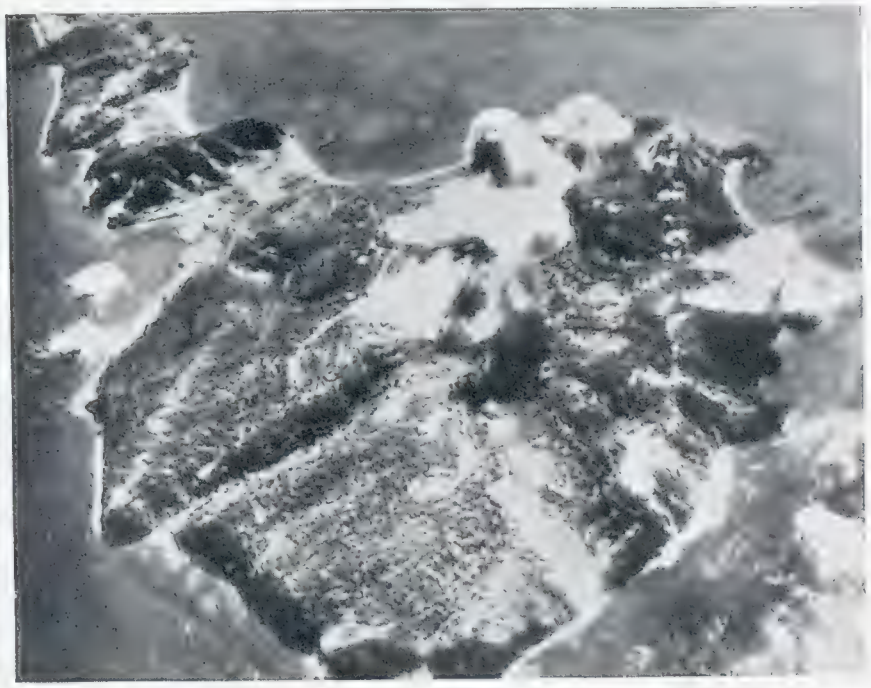
An armada of huge strength assembled around Iwo-Jima—battleships, cruisers and destroyers. Mr. Dawson's drawing gives an impression of some of them. In the forefront is a great floating fortress of some 45,000 tons. Her big steel yard-arms add a note of defiant strength to her silhouette. The central part of the ship bristles with what are probably 6-in. guns, designed to protect the giant ship from air assault. Her forward big guns (three each in two turrets), shrouded by heavy smoke, are designed as *offensive* weapons; the 6-in. guns are designed as the *defensive* armament

On left—**A SCENE ON ONE OF THE IWO ROADS:** It was over country such as this that the Marines had to make their way inland. The naval vessel in the foreground had been sunk by the Americans during one of their "strikes." Wreckage of Jap planes is piled along the roads leading inland, presumably waiting for trucks to pick it up. From rocky crags like these, the Japs poured streams of mortar- and cannon-fire into the Marines as they tried to secure their first footholds

A FEW HOURS AFTER THE LANDING ON THE ISLAND: This picture was amongst the first to reach England: it shows American Marines on a sector of the Iwo-Jima beachhead as Jap mortar- and shell-fire was being directed against them. The Marines have sought refuge in an abandoned trench and in the volcanic ash at the water's edge. In the background, amphibious vehicles roll ashore to blast a way inland for the troops

VOLIMA AS BIG AMERICAN 45,000-TON BATTLESHIPS BOMBARDED THE JAP POSITIONS ON SHORE BEFORE THE LANDING OF THE MARINES: It is known that six [illegible]**named, took part in the operation; but as mention has also been made of "16-in. vessels," it is probable that some of America's newest Big Ships have been participating in the invasion**—*Drawing by Montague Dawson*

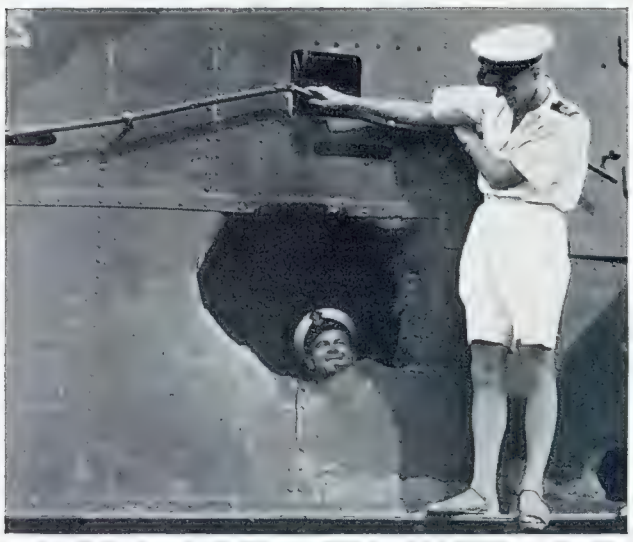
IN THE PHILIPPINES: Fort Drum, in the Bay of Manila, a strong-point which the Japs held on to after the capture of the capital, is blasted by a bomber of the U.S. Fifth Air Force



CORREGIDOR, THE ROCKY FORTRESS ISLAND AT THE ENTRANCE TO MANILA HARBOUR, TO WHICH THE AMERICANS HAVE NOW RETURNED—a picture taken as bombers attacked it as a preliminary to the landing operations: After Manila came the capture of the Bataan Peninsula; after Bataan came the capture of Corregidor; after Corregidor, the regaining of a score of former Jap strongholds in and around Luzon. Only "mopping-up" operations now continue, with the Americans in undisputed possession of every point of importance on the island. Already General MacArthur has revisited Corregidor where he was in command in 1942, and to which he promised to return

A BRITISH SUBMARINE'S EPIC FIGHT AGAINST THE JAPS : The gun crew of the damaged vessel welcome a smoke on deck between Japanese air attacks. This picture was taken just after the Jap merchant ship, her gun put out of action (*See story below*), had turned away with a list to port

AFTER ANOTHER BRITISH SUBMARINE HAD COME TO THE RESCUE OF HER SISTER. Medical supplies coming alongside in a small boat for the relief of those members of the crew who had been wounded during the epic fight



INSPECTING ONE OF THE SHELL-HOLES IN THE HULL OF THE SUBMARINE. Standing on the right is the Commanding Officer, Lieut. D. Swanston, D.S.C. and Bar. In the shell-hole is P.O. Telegraphist V. G. Harmer

One of H.M. Submarines of the East Indies Fleet recently returned to harbour with gaping shell-holes in her sides, having fought one of the most arduous battles of the submarine war. In the course of the battle she sank a medium-sized Japanese merchant ship, fought off twenty-five air attacks by Japanese planes, shot down one of the planes and damaged at least four others. A shell from a merchantman's 12-pounder gun first tore a hole in the pressure hull, and water poured into the engine-room. Whereupon Petty Officer Telegraphist V. G. Harmer and Leading Telegraphist Kenneth Wade clambered out of the conning-tower and began to plug the hole with blankets and hammocks. Four more shells ripped into the submarine, the blast from one of them blowing off Petty Officer Harmer's boots, but for twenty minutes he continued to hold the blanket in position with bleeding and blistered feet. Later, Petty Officer Harmer went to the bridge and kept up a steady fire on the planes with his tommy-gun, while Petty Officer Jones shot down one of them with his Vickers gun. During the next eight hours, until darkness, the British submarine was attacked almost incessantly from the air. The little bridge was flooded by giant splashes from near-misses. At one time it was raked by cannon-fire by a low-level diving attack, and the screen was punctured like a pepper-box. The air attacks ceased soon after sunset, and the weary crew had their first respite after nearly twelve hours of continuous action. There were sixteen casualties, two of them fatal. In the end, the crippled submarine was taken in tow by a sister-submarine and brought safely into port for repair.

THE ALLIED NAVIES IN THE FAR EAST AND NORWEGIAN WATERS

New Pictures of Daring Work by British Submarines and Norwegian "Patriots"

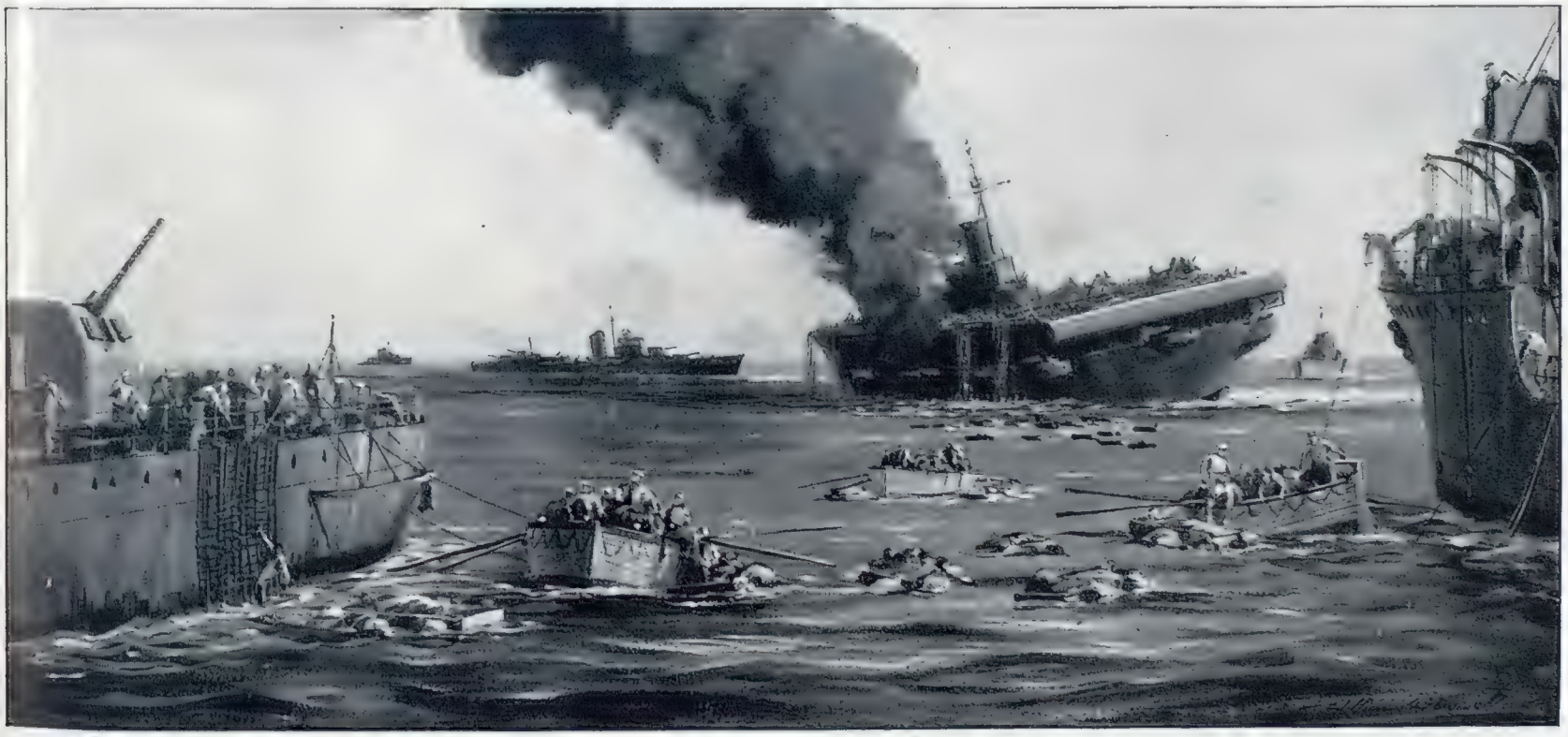
—With Two Special Sphere Drawings

A FLEET OF NORWEGIAN TUG-BOATS IS CONVEYED TO SWEDEN UNDER THE VERY NOSES OF THE GERMANS—a daring exploit carried out by patriots at Fredrikstad, in South Norway. This picture shows part of the fleet at anchor in a Swedish harbour

On February 8, 1945, armed Norwegian patriots seized eleven Norwegian tugboats and one salvage vessel and took them to Sweden under the very noses of the Germans, in one of the most daring coups carried out in Norway. The tugboats, which berthed in the German-controlled port of Fredrikstad, were boarded early in the morning—one of them was lying alongside a German warship—and all eleven boats sailed out of the port past German patrol ships, harbour fortifications and outer batteries in broad daylight. In order not to reveal the plot, one of the tugs, with a Norwegian prize crew on board, first had to tow some floating targets out to sea for the Germans to practise on. When shooting was over, the tug set course for Sweden. Three tugboats did not have steam up, and were sunk in the harbour. The salvage ship, which was seized in the port of Moss, will be missed by the Germans, as she was to be used to salvage the German ship *Donau*, which had been in use to transport thousands of Norwegian prisoners to Germany, but which was sunk in the Oslo Fiord after an explosion at Christmas

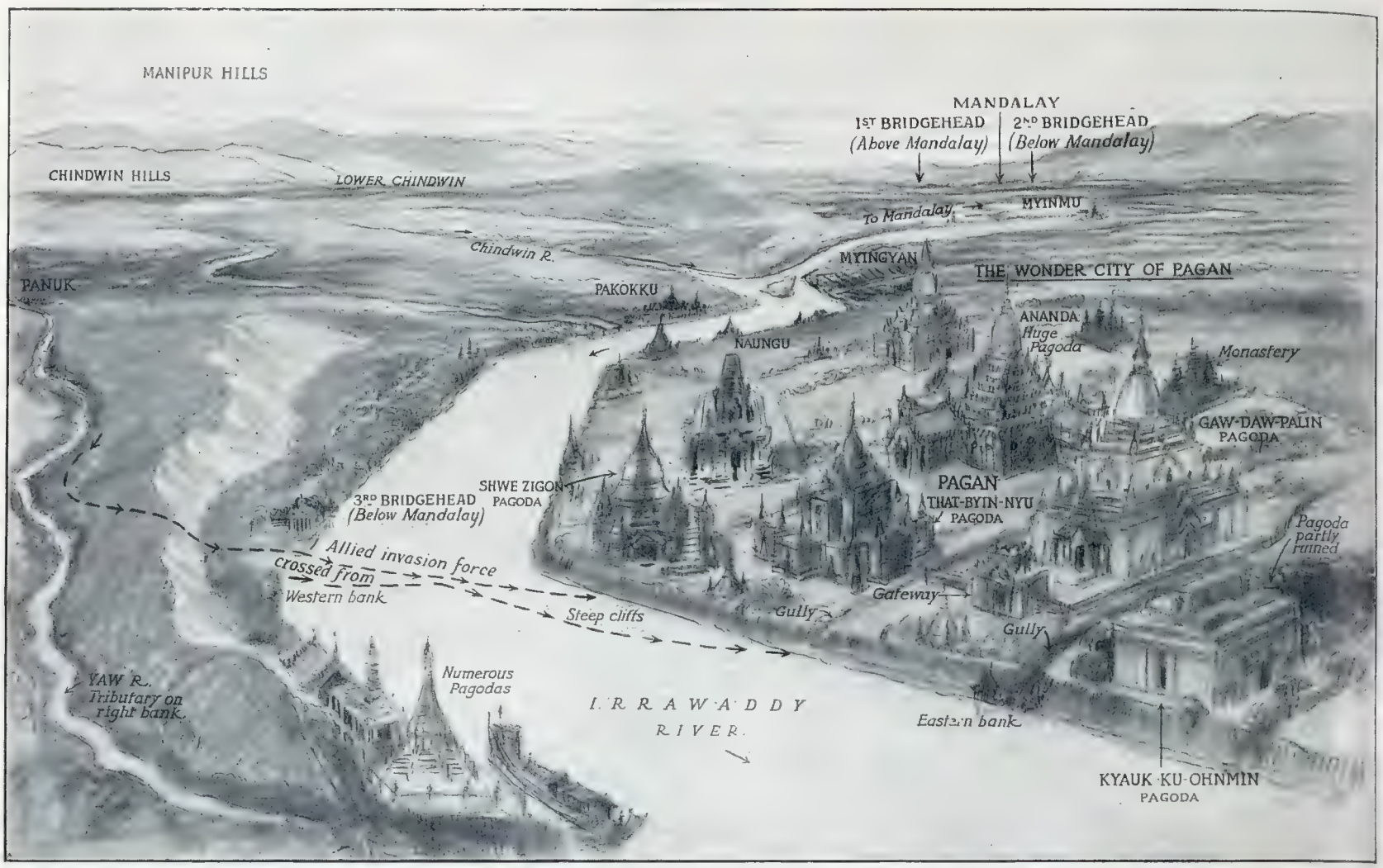
HOW THE ROCKET-FIRING AIRCRAFT OPERATE AGAINST THE ENEMY'S SHIPPING: BEAUFIGHTERS AND MOSQUITOES OF THE R.A.F. SHOOT UP NAZI VESSELS WITH ROCKET AND CANNON-FIRE OFF THE NORWEGIAN COAST. One rocket has actually penetrated the ship's cargo hatch and come out on the other side of the hull after having fired the ship—*Drawing by Wm. McDowell*

The rocket projectile, now fired by Mosquitoes and Beaufighters, is one of the most revolutionary weapons ever produced in aerial warfare. The terror of enemy seamen, the value of the rocket lies in its unfailing accuracy and its devastating effect. It is essentially a precision weapon. The chief difficulty has hitherto lain in ascertaining results. Cannon and machine-gun fire can be seen striking a ship, but when a rocket registers a hit, the results cannot be observed until after the aircraft has left. There is now ample proof that the rocket not only smashes through the hull of a ship, but also crashes through anything on its way, such as machinery or cargo, and often comes out the other side. And, almost invariably, the rocket fires the ship, which, blazing from stem to stern, sinks when water pours through the gaping holes in the hull. During the Bay of Biscay battles with shipping, another squadron of Beaufighters used to provide anti-flak cover to the rocket-firing aircraft. To-day, however, the rocket-firing aircraft provide their own anti-flak. While the pilot aims his cannon to kill the gunners and silence the flak, he simultaneously fires the rockets, which score under-water hits. A high degree of flying skill, combined with indomitable courage, is demanded from air crews. At a speed of over 300 miles an hour, the aircraft dives from 1,500 ft. to 200 ft. The flying must be accurate in every detail. Skidding or turning would negative the result of the attack. Saturation attacks—several aircraft firing at the same time—swamp the enemy gunners. But the greatest danger is from waiting enemy fighters, pouncing when Mosquitoes and Beaufighters have exhausted their ammunition on the ships and have broken formation. To foil the enemy, the strike aircraft operate with fighter cover. Two main types of warhead are used on the rockets—the 25-lb. solid armour-piercing head, and the semi-armour-piercing 60-lb. high-explosive head fired against ground targets, such as tanks, gun-sites and buildings. The latter, which can be used as anti-flak against shipping, has the same effect as the shell from a 6-in. naval gun. Each aircraft carries eight rockets—fired electrically from four rails under each wing—and a salvo is the equivalent of a broadside from a light cruiser. How this has revolutionised the war at sea can easily be seen, for whereas a cruiser normally fires at its targets from a range of two to five miles, a rocket-firing aircraft can register hits from 400 to 500 yards. The sheet of flame issuing from the aircraft when rockets are fired originally led the Germans to believe the aircraft was on fire, and they announced that entire formations had been destroyed. German ships now move under cover of darkness, starting from one harbour at dusk and arriving at their next hide-out before dawn. The rocket has also been used with deadly effect on warships and U-boats



A STRANGE RESCUE IN FAR-EASTERN WATERS: AFTER AN AMERICAN ESCORT CARRIER HAD BEEN SET ON FIRE BY THE JAPS, the wounded on board were put in cots and lowered into the sea to be rescued by other U.S. vessels—*Drawing by Wm. McDowell*

The *Ommaney Bay* was an escort carrier operating with the U.S. Navy in the Far East. She was set on fire by two bombs from a Japanese aircraft while she was proceeding to the Lingayen Gulf, in Luzon, to take part in the landing operations there. When she was abandoned, escorting American warships sank her with torpedoes. All the ship's rafts had been burned, so the wounded were put on cots, to which four or five kapok life-jackets were strapped to keep them afloat, and lowered into the water. All the wounded and the other survivors were picked up; some of them later helped to man the guns in the rescuing ships; and all subsequently went through the entire Lingayen operation. In the drawing above, boats from the other vessels are seen picking up the cots while destroyers in the background wait for everybody to abandon the burning ship before they fire their torpedoes into her



THE THIRD CROSSING OF THE IRRAWADDY: THE GREAT TEMPLE CITY OF PAGAN, 95 MILES SOUTH-WEST OF MANDALAY, through which a British force has carried out a great encircling movement directed at the Japs defending the whole area and threatening them with another "Falaise Gap." Pagan is one of the wonders of Burma, with its 5,000 pagodas—

Drawing by Percy Home

In last week's issue, we published a diagram-drawing showing the two crossings of the Irrawaddy made by the Fourteenth Army to the north and south of Mandalay. In the last week of February, a third crossing was made at Pagan, the Pagoda City of Burma, some 95 miles south-west of the great Jap stronghold. The remains of Pagan lie for 20 miles along the banks of the river and there is a veritable forest of pagodas. Originally there were 13,000; 5,000 of them can still be traced.

After the crossing had been made, the British force swept forward due east, in a surprise armoured thrust of 85 miles towards Thazi, capturing that road and rail junction, and thus cutting off the Mandalay Japs from their bases to the south. En route, the force captured Meiktila, second largest town in Central Burma, with its eight airfields.

At Pagan the huge Irrawaddy River is 2,000 yards wide: thousands of vehicles of all kinds were ferried across here on power-driven rafts.

The 14th ARMY'S CAMPAIGN in CENTRAL BURMA

The Latest Pictures from the Battle-Zones

THE BURMA AND LEDO ROADS ARE JOINED: Through an archway marking the junction of the two roads, the Commander and Chief Engineer of the Ledo Road—Brig.-General Lewis B. Pick—rides in a jeep. American and Chinese troops stand by the roadside cheering at the opening of the Highway, which has been given the name of Pick's Pike

THE LANDING ON ARAKAN, NEAR RU-YWA, the mainland behind Ramree Island, whereby the Japs were cut off from retreat: On February 26, British and Indian troops of the 15th Corps made a landing on the east bank of a chaung, or river estuary, near Ru-ywa, Arakan stronghold lost in a maze of swampy channels and marshlands. The landing was carried out on the now familiar lines—although, in this case, it was a "chaung" and not a sea operation. The landing-craft were supported by naval sloops; R.A.F. and naval barrages had softened up the enemy positions to a considerable extent. This picture shows how the first assault craft went forward, whilst the second wave was being held back for later operations. As a result of this landing, numbers of Japs were trapped between two Allied pincers

THE FIRST ALLIED CONVOY ARRIVES IN KUNMING: Chinese civilians crowd the streets to welcome the first truck convoy to arrive in the town after the opening of the Ledo-Burma Highway. The joining of these two roads opens a land route of great strategic importance over which Allied war supplies will now be transported into hard-pressed China

THE CAPTURE OF THE BURMESE VILLAGE OF YWATHITGYI

THE BATTLE CONFERENCE BEFORE THE TAKING OF YWATHITGYI: A British Lieutenant-Colonel outlines the final dispositions to the commanders who will take part in the capture of this little Burmese village

MEN OF THE FOURTEENTH ARMY ADVANCING THROUGH THE VILLAGE, after its capture, into another Burmese settlement on the road leading to the city of Mandalay seventeen miles away by way of the Irrawaddy basin road

THE BATTERED VILLAGE OF YWATHITGYI AFTER ITS LIBERATION FROM THE JAPS. Its capture was effected only after a fanatical resistance on the part of the enemy. Most of the dwellings were destroyed during the battle

A BRITISH PATROL INVESTIGATES A BAZAAR BUILDING which may hide a lurking and fanatical Japanese sniper during mopping-up operations in the village

The little village of Ywathitgyi was captured by the Royal Scots on February 3, with the aid of a terrific air and artillery bombardment. It was stoutly defended by the Japs owing to its strategic importance on the route to Mandalay, only 17 miles away to the east. About 100 Japs were still in Ywathitgyi when the troops reached the village on February 2, but flame-throwers were used to force the defenders out into the open. Of the 100 Japs, forty were killed by the Royal Scots, and twenty were killed by bombs from the air. The capture of the village enabled our troops to gain full control of the north bank of the Irrawaddy from the Sagaing hills, strongly held by the Japanese to where the Chindwin flows into the Irrawaddy

A BATTLE CASUALTY receiving treatment in a hurriedly-constructed First Aid Post

BURMESE PAGODA BUILDINGS IN THE CENTRE OF THE VILLAGE STILL STAND—but amidst a pile of ruins. A former enemy strong-point is seen in the foreground

THE COLONEL WHO LOST HIS TROUSERS : During the British and Canadian advance through the flooded areas near the Maas, the Colonel of a Canadian Regiment managed to get soaked through up to his waist. Hanging up his trousers in a ruined farmhouse, he carried on with his plans for the advance while they dried out. Here he is seen with one of his officers in his very informal attire

AROUND NIJMEGEN MANY OF THE DUTCH ROADS ARE UNDER WATER, making conditions very difficult for the local residents and farmers. Before retreating across the Rhine, the Germans breached the dykes, flooding large areas in the Nijmegen-Cleve area. Here, Dukw amphibious trucks, carrying Allied supplies, are passing along what was formerly the main road, which is now lined with wrecked and flooded houses

BEHIND THE BATTLE-LINE

The Life of Soldier and Civilian in the "Back Areas"

—As Witnessed by CHARLES GRAVES During His Recent Tour of Belgium and Holland

THE primary purpose of my going to the Continent as a war correspondent was, of course, to see the R.A.F. and the Front Line. It was impossible, however, not to fill my notebooks with masses of details and impressions about the lines of communication, welfare, civilian life, the behaviour of troops on 48 hours' leave—in fact, the whole busy life behind the Front.

Among the first people I saw was the A.P.M., Brussels. He said that the behaviour of the British troops was exemplary in almost every way. Scarcely a single indecency charge had been preferred, and though a considerable number of men were absent without leave, the figures were surprisingly low if one took into account the contrast between the appalling hardships at the Front and the comparative luxury in leave centres. There were bound to be a number of Black Market offences, involving the disposal of bully beef, chocolate and the like, to civilians who would pay high prices for them. Similarly, the military police have raided a number of cafés and restaurants where whisky and gin have been on sale; for their very presence indicated that they must have been stolen H.M. property. What he did not tell me was the number of Army cooks court-martialled every week—the sentence is usually one year's imprisonment—for selling stores to Belgians and Dutch.

Saluting, both in Brussels and at the Front Line, is of a very high standard. I myself, although a war correspondent and not entitled therefore to salutes, was accorded them continuously. By the by, the men on leave all took advantage of the comparatively recent rule whereby they could undo the collar of their battledress blouse and show a collar and tie as if they were officers. Incidentally, I did not see a single drunken British soldier throughout my stay. Discipline is excellent. The men have a great respect for their officers when they have seen them in action. Altogether, the other ranks are much less Left Wing than they were eighteen months ago, so a Major-General told me in Holland. The latter's chief anxiety was the drop in the supply of good young leaders from the depots in Great Britain.

Of the many welfare centres in Brussels, the most interesting is the Jewish Hospitality Club. It is housed in the former Turkish Legation, which was requisitioned by the Germans as the headquarters of Nazi culture. They built a splendid cinema at the back, to teach young Rexists to admire Hitlerism. They imported some of their best artists for the interior decoration of the building itself. When Brussels was liberated they left behind them a library of books about Nazi Kultur, as well as all the furniture.

It is Nemesis that to-day the Shield of David is flown on a banner outside the main entrance. It is the first of a series of Jewish clubs on the Western Front. Others will be installed all the way through Germany to Berlin itself. As the Shield of David has been a mark of degradation in all the occupied countries, the wearing of it as an integral part of an official uniform (for it is worn by all the khaki-clad J.H.C. workers) is very healthy. When I visited the club in Brussels, I found that 75 per cent. of troops using it were non-Aryans, who appreciated the successful attempt of the organisers to run the club on non-canteen lines—with fresh rolls instead of sliced bread, for example. Actually, there is quite a large percentage of Jews in the B.L.A., if only because Jews as a whole tend to enter the distributive trades instead of becoming coal-miners or steel workers and, therefore, being reserved.

It is astonishing to find that there has been no Ministry of Labour direction in Belgium such as that which exists in Great Britain. In consequence, any amount of labour is available for luxury trades like hotels, restaurants and high-grade shops. Moreover, the streets, not to mention the drinking clubs, are full of well-dressed Belgians of military age. One or two contractors complained admittedly that the British and Americans were paying 3 francs an hour more for Belgian workmen than the usual rate, but I also heard this denied in other quarters.

To one who has lived in a capital city most of his life, it was refreshing to see another capital—that of Belgium—with scarcely a pane of glass disturbed. Some of the stained glass of St. Gudule has been boarded up or removed, but much of it remains as before. The Mannekin Pis, that famous little statue of the naked boy in the Grand' Place, is entirely undamaged. Even shops with British names like " Old England," or cafés with the names of English brewers over the front door, have escaped unscathed. What one does miss are the gingerbread shops, while tobacconists are also rare and practically empty. As for tinned milk, it becomes very wearisome after a time, and so does the absence of fresh fish.

But life on the whole is luxurious in the big Belgian cities compared with London or Manchester.

As soon as you cross the Dutch border, however, there is an immediate change. The Dutch towns and villages are trim and clean, but the population is badly under-nourished. The shops are almost empty, and one suspects that tuberculosis is rife. The Dutch are a proud race. They have never forgotten Admiral van Tromp, and they have had a very bad time under German occupation. In spite of this, they do not show the same enthusiasm for having been liberated as do the Belgians.

One of the most fascinating points about Belgium and Holland is the realisation that you are sleeping, drinking, lunching and dining in exactly the same hotels, aerodromes, barracks and houses used by the German Luftwaffe between raids on London. If only walls had voices as well as ears, they could tell much about the Palace Hotel in Brussels, the aerodromes of Eindhoven and Gilze, the cafés in Diest, the restaurants of Louvain and the boulevards and squares of Antwerp.

It was particularly interesting to visit those aerodromes from which London was blitzed ninety-six nights in succession. You can see the bierstubes of the German N.C.O.s; the lockers with German names still upon them; the outbuildings, with the typical long eaves, of Bavarian farmhouses in the heart of Holland and Belgium.

The affection of officers and men, particularly of the R.A.F., for their animal pets is almost frightening. A certain wing of fighter bombers has a goat which has been attached to them since Manston and Coltishall. This goat is a perfect curse. He drinks alcohol and gets as tight as a coot; he devours gas capes and ersatz mattress stuffing, even the wind-screen wipers off staff cars. On one occasion recently he spat out the brass of a starter cartridge and ate the rest of it. The Captain in charge of this wing told me that on the only occasion when the goat was missing for twenty-four hours, seven of their aircraft failed to return. Billy, the goat, is therefore the object of an embarrassingly superstitious regard. This Group-Captain, by the way, rose to his present rank from that of a sergeant-pilot within three years. This must be an all-time record.

Tanks, even within a couple of miles of the Front, remind one irresistibly of the White Knight. Their exteriors are covered with dunnage, kitchen utensils and the personal property of the tank crew inside. You remember the White Knight in *Alice Through the Looking-Glass*.

ALLIED CLOTHING FOR THE DUTCH : Unloading supplies from a captured German truck. During the Allied advance across the flat country of Holland, small villages were invariably converted into strong-points by the retreating enemy. These were heavily shelled by our artillery and mortared. When occupied by the Allies, the Germans shelled and mortared them again, causing considerable damage to property and possessions like clothing. In many cases, the Dutch people were left with only what they stood up in. The Allied Governments placed large orders with textile manufacturers, who shipped the necessary articles to S.H.A.E.F. and they, in turn, held them for the Civil Affairs authorities, until they could be fairly distributed. The clothes are now being given out

CONVOYING THE MAROONED INHABITANTS OF WALCHEREN ISLAND TO DRY LAND : The rescue of the inhabitants of Walcheren, who for weeks have been living in half-submerged houses, is still going on. They are being taken to Middelburg in all sorts of boats towed by Army assault craft. Nearly all the farmlands, off which the inhabitants prospered, are inundated. When the tide comes in through the breach in the sea wall, some parts of the island are flooded to a depth of 6 ft. Here, horses are seen pulling a lifeboat down a street in Koudekerke to an assembly-point, where a convoy will be formed and towed to Middelburg by Army assault boats

A SCENE ON THE BORDER NEAR THE OUR RIVER, where the 6th Armoured Division made its initial crossing. The sign was erected by the Americans over the opening of a German pillbox

DEALING WITH REFUGEES FROM THE FRONT LINE : At Verviers, in Belgium, there is a Displaced Persons Bureau, where people of different nationalities who have been brought back from front-line areas are segregated—to be sent back to their home countries, or (if that is not possible) to safe areas away from the battle zone

THE U.S. ARMY FIGHTS THE FLOODS IN THE LIBERATED REGIONS : The pontoons in the background are for bridges across inundated areas near the battle line. In the foreground are doctors and stretcher bearers of an infantry unit conveying wounded to the rear in a jeep

THE WRECKAGE OF VILLAGES IN THE PATH OF THE ARMY : In this case, the damage was made by Typhoon aircraft, which caused considerable devastation and threw up big craters. A bulldozer is clearing away the wrecked houses to level out the road

The officers' clubs are extremely well run. This is due a great deal to Tony, formerly of the Savoy Grill and now Sergeant Roncetti. His duty is to go forward whenever there is a substantial advance and make all arrangements for officers' clubs as near to the Front Line as possible. He must have been very busy during the latest advance. It is strange to see a sergeant directing Majors and Brigadiers to their tables, or even telling them that they must wait until there is room for them.

And yet even corps commanders have to submit meekly to military policemen on traffic duty. I have written in THE SPHERE previously about the Corps of Military Police, but that article was based on information received. I needed to go to the Front myself to realise what wonderful fellows these Red Caps were. There they stand at cross-road after cross-road within two or three miles of the Front, directing the traffic as smoothly and calmly as if they were at Hyde Park. And yet they know that any cross-road is a priority target for German artillery, not to mention the Luftwaffe. I watched one of them at Sittard for nearly an hour. He never lost his temper; never used the abrupt gestures of some of our Allied military traffic-cops. He was, apparently, able to give directions to half-a-dozen drivers simultaneously and still keep the flood of traffic surging on.

In spite of their vulnerability, these military policemen of ours never wear steel helmets. If it comes to that, you never see a steel helmet until you are literally in the Front Line. The American troops, unfortunately for them, are compelled by General Eisenhower to wear steel helmets however far they are from the Front Line. I can already visualise advertisement campaigns in the American newspapers and magazines after the war in connection with hair restorers for baldness caused by Steel Helmet Pressure, Tin Hat Tiredness and the like.

From the sublime to the ridiculous. The other remarkable impression which remains in my memory is that of dog-racing in Brussels. This occurs nightly. There are twenty-one races, run every five minutes, with ten dogs in each race. Everything goes. In other words, it does not matter how many fights there are during the progress of the race, it is never declared null and void. This dog-racing takes place in a building which looks as though it was previously used as a swimming-pool or a skating-rink.

The dogs start from the top of a slope which extends about fifteen yards before the dirt surface proceeds on the level for the length of a cricket pitch. At this point the track is banked and curved for forty yards before it once again becomes level for about twenty-two yards. At this stage it curves once more, steeply raked. The official length of a dog-race is 200 metres, which means twice round the small oval track.

I counted thirty-six bookmakers. There were probably more. The audience consists of British troops and Belgian civilians. The dogs are allegedly whippets, but many of them must have the most peculiar grandmothers. No bookmakers are famous for the generous odds they lay, but the Belgians certainly pay very much better prices than the totalisator. The latter, while I was there, never paid more than 27 francs on a 10-francs unit, whatever the bookmakers' odds were against the dogs. The hare, I may add, is a piece of cotton wool spread over a wooden bar, which circles the track 3 ft. above the ground emitting red, white and blue sparks. In spite of its grotesque appearance, the alleged whippets and greyhounds thoroughly enjoy the race, although many of them skid into the walls of the track on the steeply-banked corners.

When you consider that the Front Line is only three hours by jeep, it makes you wonder next morning whether the whole thing was not a wild dream.

BEAUFIGHTERS OF THE BALKAN AIR FORCE attack a Yugoslav castle town : Rocket-firing Beaufighters of the Balkan Air Force, piloted by South Africans, recently attacked enemy targets in the German-occupied town of Zuzemberk, in Yugoslavia. One of the Beaufighters is here seen just after its rockets had been released. Smoke is rising from targets on which hits have already been scored by other aircraft. Strikes were also made by cannon from the aeroplane from which this photograph was taken, on the ancient castle seen in the foreground. The South African Air Force squadron which carried out this attack includes R.A.F. personnel

The PRIME MINISTER at the FRONT

And Other Pictures from Many Different War Theatres

DR. SUBASIC RETURNS HOME : After three years, the Yugoslav Prime Minister and his wife have returned to their homeland. The first morning in his own country finds the statesman in his office ready to make a start on the work which has awaited his arrival. Madame Subasic is assisting with his papers

PRESIDENT ROOSEVELT MEETS THE EMPEROR OF ABYSSINIA : The scene is aboard a United States warship in the Great Bitter Lake, through which the Suez Canal passes in Egypt. The meeting took place while President Roosevelt was *en route* for home, after the recent "Big Three" conference at Yalta, in the Crimea

MR. CHURCHILL VISITS BRITISH AND AMERICAN TROOPS IN GERMANY : With Field-Marshal Montgomery and an American General at the entrance to the Citadel in the captured fortress-town of Julich

THE PRIME MINISTER CHATTING TO AIR VICE-MARSHAL HUDDLESTON AND GENERAL CRERAR at the latter's Field Headquarters : A few days ago the Prime Minister visited General Eisenhower and Montgomery at their Headquarters to discuss military matters. A considerable part of the tour was on German territory, and a visit was paid to Julich and to the Siegfried Line, where he inspected the famous "Dragon's Teeth." Mr. Churchill was accompanied by the Chiefs of Staff. Following his visit to the American sector on March 4, the Prime Minister visited the forward areas of the British and Canadian front on the following day. He toured through the Reichswald Forest and also passed through Goch and Kessel, two German towns now in Allied hands. He was lustily cheered by the troops as he passed in his car ; on the eastern edge of Goch he wrote a message on a shell, "A present for Hitler," and then fired the 9·2-inch gun to despatch it into enemy-occupied territory

KING FAROUK'S BIRTHDAY PARADE IN CAIRO: With Ferik Ibrahim Attala Pasha, he takes the salute. The King of Egypt reviewed his army in Abdin Square, Cairo, on the occasion of his birthday. He took the salute during a march-past lasting two hours. Many senior Allied officers were present, including General Sir Bernard C. T. Paget, K.C.B., D.S.O., M.C., Commander-in-Chief, Middle East, and Air Marshal C. E. H. Medhurst, C.B., O.B.E., M.C., the newly-appointed A.O.C.-in-C., Middle East

VENEZUELA JOINS THE UNITED NATIONS: A scene in Washington. Becoming the forty-first signer of the Declaration of the United Nations, Dr. Diogenes Escalante, Ambassador of Venezuela, is shown (on left) as he signs at the State Department in the American capital on February 21, in the presence of Assistant Secretary of State Joseph C. Grew

THE NEW RESIDENT MINISTER ON THE GOLD COAST HOLDS A PRESS CONFERENCE: Captain the Rt. Hon. Harold H. Balfour, M.C., M.P., new Resident Minister in British West Africa, held a Press conference immediately he arrived in the Gold Coast. Many African newspaper representatives attended at the Resident Minister's Headquarters at Achimota, Accra, Gold Coast. Captain Balfour stressed his interest in the affairs of the African troops now serving in India and Burma. After the conference, the Minister entertained the African journalists to tea. In this picture, he is seen talking with Dr. J. B. Danquah, Ph.D., a well-known publicist. Captain Balfour's appointment was announced in December last

WEST AFRICANS IN BURMA HEAR THEIR "HOME TOWN" NEWS: "Here is the news"—and this is Corporal Eric G. Price, of Bath, introducing it. But what the news is, even Price can't tell without keeping his eye on the script. The voice of Price and his fellow-broadcasters goes out from Lagos, in Nigeria, and traverses the globe, to India and right up into bamboo huts and tents in the Arakan jungle, where eager West African troops listen for news of their towns, villages, cocoa farms and families. Corporal Price prepares this African "Home Town" News, and native announcers put it over in different vernaculars. There are so many dialects in West Africa that each script has to be translated many times. Corporal Price was formerly a reporter on the *Leicester Mercury*

A W.A.A.F. OFFICER MARRIES AN AUSTRALIAN PILOT IN ITALY: The scene as bride and bridegroom left Caserta Cathedral. The wedding took place in Caserta Cathedral, Italy, on January 22, of Section Officer Grace R. Thornton and Flying Officer John Austin Devine, an R.A.A.F. pilot. The bride's mother arrived in Italy as a civil volunteer welfare worker with the Church of Scotland Huts, and was thus able to attend her daughter's wedding. Section Officer Thornton joined the W.A.A.F. in September 1939, and has been four months in Italy. The bridegroom has served overseas for three years. The wedding ceremony was performed by Squadron Leader the Rev. G. Sparrowe, and the bride was given away by Squadron Leader H. G. Thomson. A guard of honour was provided by the R.A.F. Regiment

A SERVICES WEDDING IS CELEBRATED IN THE MIGHTY ST. PETER'S CHURCH IN ROME: The sergeant bride and the sergeant bridegroom on the steps of the church. The United States recently sent a present to British Service girls in the form of a dozen wedding dresses, for loan to those who are getting married but finding it difficult to obtain a wedding outfit. Two of these gowns recently reached Italy, and the first to wear one was married at St. Peter's, in Rome, on Saturday, February 17. She was Staff Sergeant Bettine Eve Todd, A.T.S., of Barnes, London; she was married to Sergeant John Hewitt, R.E., of Widnes, Lancs. It was a "Cinderella" wedding for Staff Sergeant Bettine. When the outfits arrived, it was found that one of them included a pair of size 3 shoes—a size which fitted the bride. The marriage was the culmination of a sergeants' mess romance. Both the bride and bridegroom ate in the same mess, and struck up a firm friendship over the meal-table

BRITISH AND AMERICAN GUNS NOW BEING USED ON THE BATTLEFIELDS OF EUROPE: The 155-mm. howitzer and its two types of recoil mechanism; and the big 220-mm. howitzer of the U.S. Army—*Drawing by E. G. Lambert*

Fundamentally our American allies and ourselves use the same types of gun. An effort has been made to preserve uniformity, so that material can be interchanged. But some big differences of construction have inevitably overtaken these good resolutions. The above drawing, for example, shows two versions of the 155-mm. modern gun-howitzer type, capable of firing direct at a target as a gun or lobbing shells like an old-fashioned howitzer. But the American weapon has an entirely different recoil mechanism from the British. The Americans have adhered to the older type of mechanism, with recoil and compensating cylinders lying along the barrel. Whereas our own gun has been fitted with cylinders at the side which recoil at an angle against the thrust of the gun. In the early years of the war, we were glad to receive many American guns and use them, but to-day we manufacture all our own, and use our Allies' generous gifts only in special circumstances

On the right of the drawing is an American 220-mm. howitzer, engaged in firing a shell over 300 lb. in weight and nearly 4 ft. high a distance of miles through the upper atmosphere to fall with the effect of a small V-bomb, though with perfect accuracy, on a target in Germany. It will be noted how the long trails provide a secure anchorage when swung out at right-angles. The barrel is so beautifully made that only its stubby width betrays the immense calibre. On the left are cylinders of propellant charges. Our American allies set a particular example to our gunners in the neatness of their sites—very few examples of shells lying untidily—which is a wise insurance against disaster during a counter-battery duel.

GUNS, PILL-BOXES AND SELF-PROPELLED DRY DOCK

Some Allied and German War Devices Illustrated and Described

A GERMAN PILL-BOX ON THE WESTERN FRONT, captured by the 30th Infantry Division of the Ninth U.S. Army. The hole in the ground is from 6 ft. to 8 ft. deep, and is surmounted by a bolted turret of half-inch armour

LOOKING INTO THE PILL-BOX FROM ABOVE: Within this specially-prepared position is mounted a ·30-calibre machine-gun. Placed in level country, where its location might be difficult to discover, or on a slight eminence, such pill-boxes can wreak great havoc amongst advancing troops. Such devices as these have greatly helped the enemy in his recent defensive efforts on the Western Front

ANOTHER ALLIED SECRET OF THE WAR REVEALED—a self-propelled floating dry-dock making a passage by sea: This picture, just released for publication, shows a bow-on view of the American Navy's new repair dry-dock, of which a number are now in use near the battle-zones. Made of concrete, this version—specially designed for war needs in areas where warships are operating far from big naval bases—is self-propelled: it has blocks already installed for the keels of the ships it will service. The dry-dock operates by submerging to allow the entry of a vessel; then rises again, to lift the keel off the water. Note the bulwark at the bow

A HUGE GERMAN MORTAR

Mounted on a Royal Tiger Chassis

The series of photographs reproduced on this page are the first to be released for publication in England. They show details of a newly-captured, self-propelled 380-mm. mortar, or howitzer, which has been mounted by the Germans on to a fortified Mark VI, or Royal Tiger, chassis. This unusual vehicle was taken in Oberembt, Germany, by an infantry battalion of the 19th Corps of the American Ninth Army.

The front armour of the vehicle is 5 in. deep, and has been mounted at an angle of 50 degrees: at the rear it is 4 in. thick. The mortar-barrel is 7 ft. long and is rifled. The base of the shell is 15 in. in diameter and it is 5 ft. long, weighing 350 kgm., or 770 lb.; it is loaded into the tank by means of a crane, and then into the breach of the mortar by a hoist inside the tank. There is no recoil, but a heavy sleeve encloses the barrel. The shell is projected by a propelling charge inside the shell and has the characteristics of a rocket. Its range is believed to be in the neighbourhood of 5,000-6,000 yards.

Other armament on the vehicle include one ·34-calibre machine-gun on the right side, and a grenade-launcher of 80 or 81 mm. Six men are estimated to operate the vehicle. There is no movable turret on top of the tank, and it is manoeuvred into firing position with the use of tracks. A Maybach engine powers the contrivance.

A prisoner of war has stated that twelve rounds are usually carried inside the vehicle. The barrel of the howitzer is mounted to the left (looking towards the front of the tank). Altogether, this new German monster makes a very powerful and mobile weapon of modern warfare.

A close-up of the port which houses the grenade-launcher on the top of the vehicle

THE LEFT SIDE OF THE CAPTURED GERMAN SELF-PROPELLED HOWITZER: The front armour of the Royal Tiger chassis is 5 in. deep: the mortar-barrel is 7 ft. long (part is inside the turret) and the shell is 15 in. in width. It was knocked out by American shells

A VIEW FROM THE RIGHT SIDE OF THE VEHICLE, showing the small ·34-calibre machine-gun which is mounted alongside the big 15-in. mortar-barrel

THE HOLES MADE BY SHELLS FROM AMERICAN GUNS which knocked out the monster tank. At the rear, where the shells struck, the armour is 4 in. thick. Note the crane at the stern for hoisting the heavy shells

A VIEW OF THE INTERIOR THROUGH THE REAR PORT, showing how the big shells are stored inside and the slide which feeds them into the barrel of the big howitzer or mortar

A VIEW FROM THE LEFT SIDE, showing the top hatch and the crane used for loading heavy shells into the interior. Three shells go to the ton (770 lb. apiece), and twelve of them are carried with the vehicle

The World of Books—By Vernon Fane

A (Very) MIXED COLLECTION OF NEW BOOKS

Which Range from Eighteenth-Century Autobiography to "Tough" Life in Roman Catholic Liverpool and Wartime Experiences

ALTHOUGH written in novel form, **ISLAND IN THE SKY** (Michael Joseph. 8s. 6d.) is essentially a war document in which the writer, Mr. Ernest Gann, has fused real and fictional experiences only in so far as they would make a more profoundly true record of the war conditions it was his purpose to describe.

The story is of the pilot, Dooley, and the crew of an American Army transport plane, flying between Greenland and British Columbia. On one flight Dooley runs into bad weather, the plane ices up and is driven hundreds of miles off its course to make a forced landing in the unmapped wastes of north-east Canada. Here Dooley manages to get one message through to Victoria, giving the approximate direction of his flight, and on this slender evidence the Transport Command send out their pilots, all of them friends of Dooley's, on a search for his grounded plane.

That search, the flights in terrible weather directly over the aircraft though without seeing it, the endurance of the crew, all this makes up the narrative, jumping a little disjointedly in alternate scenes between the rescuers and the rescued. But there is excellent writing here, and I 'm inclined to agree with the American critic who wrote that "Only a creature with the earth-clinging instincts of a groundhop could fail to be stirred by it." You don't need to know any more than I do just what a groundhop is to see the force of that comment when you 've read Mr. Gann's book.

A WELL-KNOWN NOVELIST IN ITALY IN KHAKI : Senior Commander Pamela Frankau, author, journalist and broadcaster, is now on a visit to the A.T.S. in Italy. Here she is seen chatting to a group of girls serving at an Administration office

CHICKEN EVERY SUNDAY (Methuen. 8s. 6d.) is one of those good-humoured, likeable American books of reminiscence that are typical of their country of origin. Mrs. Rosemary Taylor has subtitled her gay little volume "My Life With Mother's Boarders," but it is far less a record of her life than a vivid and varied account of the peculiarities of the boarders, the indomitable spirit of the mother in question, and the amiable traits of the father, one of the pioneers of Tucson, Arizona, and as poor a businessman as ever handed the running of a laundry over to a barber.

For that is precisely what Father once did, and it was just one of the reasons why Mother insisted on keeping boarders; that, and the fact that she would, in spite of a family of children, have found her life very empty and featureless without these peripatetic ladies and gentlemen who, in almost every instance, became close friends of their landlady's family.

For the most part the boarders reacted to the family's friendliness with equal affection, stayed for months at a time, returned year after year, and shared in a communal life which, like the book, never had a dull moment in it.

Though in time, space and locale everything is different about **ELIZABETH HAM BY HERSELF** (Faber. 10s. 6d.), there is just one point of likeness between this late eighteenth-century journal and Mrs. Taylor's family chronicle. Both writers had charming and improvident fathers of the type who are probably better met on paper than in fact. Mr. Eric Gillett has edited Miss Ham's diary, which covers a period from 1783 to 1820, her childhood in Dorset, and her young womanhood there and in Ireland, where she lived for six years and "acquired quite an Irish accent" and became accustomed to Irish manners.

So good were these last, particularly among the peasant people, that Miss Ham found English speech and manners suffered extremely by contrast and remarked, on her way to Bath, that she thought "everyone was screaming."

Except for interludes at quite amazingly bad schools, her childhood was a happy one, and her girlhood at Weymouth, then made fashionable by George III's yearly visits, a gay one. In Ireland her family seem to have a comfortable country house, and she and her sisters appreciated the nearness of a garrison town, and the company of the young officers who were in anything but "short supply."

This part of Miss Ham's life might, the editor writes with more candour than courtesy, be described as "Elizabeth Ham in Search of a Husband." Unfortunately, that time is never succeeded by one to be entitled "Domestic Bliss," for the lady found herself without money or husband, obliged to take up the only profession open to women of her kind—a post as governess.

The interest and the pathos of this book lie partly in her vivid little sketches of contemporary life; the trips to the Channel Islands, the balls on board ship, the year-long visits to friends, the tea-parties and the travel—in cramped, overcrowded conditions which exactly recall us to the year 1945; and partly in the accounts of her own struggles to make some kind of independent life for herself, without money or training. She was not an especially lovable character, and we are told that whole pages of maudlin self-pity have had to be excised from the journal, but she was brave and honest and wonderfully observant; quality which, in a diarist, greatly outweigh the desperate consciousness of gentility, and the over-readiness to see a slight.

Mr. Bill Naughton is a new writer, of whom we are told that he is Irish peasant by birth, Lancashire working-class by upbringing. To this could now be added promising biographer by inclination. It remains to be seen from his next book, to which I 'm already looking forward, whether he is also a novelist.

A ROOF OVER YOUR HEAD (Pilot Press. 7s. 6d.) is an account of a marriage and of financial difficulties in the years before the war, autobiographical and told more as a series of incidents than as a constructed novel. Bill and Nan, both aged nineteen, elope to Liverpool and try to make a life of their own. Their story is written by Bill, the son of Irish Roman Catholics. The two young people go through the terrible period of unemployment, and have two children.

At last Bill is able to find a house for his little family and a fairly regular job for himself as coal-heaver. They have another child, but it dies, as they can't afford the proper treatment for it, and Nan has no help in the house after her confinement. Eventually they all come to London, where Bill gets a job as a lorry-driver and sets himself to learn to write. This is his first published book.

The incidents of this hard life are told with a clear understanding and without self-pity. They stay in one's head long after the story is finished, particularly the minor details of the family life: the house with the crack in the wall through which they could watch the football matches; the time when they pawned the cutlery, then lost the one remaining knife and had to eat with their fingers, using Bill's razor-blade to cut the bread; on all this the author is simple and honest and therefore moving, but when he comes to the larger issues of the "hunches" he has, and what he calls the "great heart of humanity," he seems to lose himself and his understanding in an emotional pretentiousness.

Then the hand of his Irish ancestry is certainly heavy upon him. But it will be interesting to see what he does next, in whatever line it is.

UTILITY FUR COATS FOR WOMEN : These made their official appearance on Thursday last; manufacturers are now very busy producing them and trying to satisfy the great demand. The prices are quite moderate—from £16 12s. 6d. to £29 18s. 6d.—and the furs used include antelope, fox, kid, various kinds of lamb, hare, seal, jackal, dingo, mole, fitch, genet, opossum and wallaby. This picture shows a Scotch moleskin cape, the retailed price of which is £18 1s. 5d.

TAILS AND TALES (Gollancz. 7s. 6d.) is, not altogether surprisingly, a book about dogs, but there is no need for the uninitiated to sheer off for that reason. Miss Nancy Price's prose does not spill over with adoring, doggy adjectives or coy reminiscences, though there are some excellent anecdotes. The book deals, after what must have been considerable and serious research, with about fifty different breeds of dog, their ancestry, and some of the best stories about them.

They range from the better-known British types to the almost legendary animals of eastern, northern and central India, Persia, Mexico, Finland, Greece, and so on. There are stories of smuggling dogs which, in the eighteenth century, carried thousands of pounds worth of lace over the Netherlands frontier, and of dogs of the present day, one of which dug for sixteen hours in the rubble of a blitzed house to release, unhurt, a fox-terrier acquaintance.

A section of the book, and an amusing one, is devoted to royal favourites, from Ulysses' Argus to Edward VII's Cæsar, and another to those of other famous personages: statesmen, authors and actors, men and women who made friends and boon companions of their dogs. Miss Price writes of the uses of dogs in wartime; of ghost dogs; of monuments to dogs, and finally of the Brown Dog of Battersea, a little brown dog who suffered and died for medical science some forty-two years ago.

In fact, as I said, this is a book about dogs. But it is a good one.

A HOUSE MADE OF ALUMINIUM, and erected "in secret" at the Tate Gallery: The roof is painted green and the outside in cream. The latest creation in prefabrication is an aluminium house, which has been erected at the Tate Gallery. It is the result of experiments urged by Sir Stafford Cripps. The house can be erected in one day; and it has the advantages of being soundproof, warm in winter and cool in summer. It is claimed that the aircraft industry could manufacture them by the thousand. They are claimed to be practically everlasting

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Drawn by Eric Kennington

OSWALD CARTER was born at Winsford, Cheshire, 66 years ago. His family have been connected with the Cheshire salt industry for a hundred years and Mr. Carter joined his father in a salt works at the age of fourteen. This industry depends on underground water which runs over and dissolves rock salt which lies far underground. The "brine" from these subterranean reservoirs is pumped up, and heated to evaporate the water leaving the salt behind. When Mr. Carter started work, evaporating was done in "open pans"—big iron tanks — heated by coal fires, but in 1906 a plant called a triple-effect vacuum evaporator was built. This evaporates the water from the brine by heating with steam and carrying out the process under a partial vacuum. The result is purer salt and a very considerable saving of fuel. When the plant was being built Mr. Carter was employed as a labourer: today he is the chargehand controlling the plant he helped to erect 38 years ago. His is a job requiring care and experience. Mr. Carter has to keep three evaporators "in step" with each other, control the brine levels in the plant and watch for air leaks, which affect the amount of vacuum and indirectly the amount of coal consumed. To do this Mr. Carter has to watch no fewer than twelve gauges of various kinds and attend to the smooth working of seven pumps. The plant has a daily production of 300 tons of salt with a purity of 99·95%. This is prepared not only as table salt, with which we are all familiar, but also as salt in other forms for use in agriculture and industries such as soap-making, explosives and light alloys. Evidence that Mr. Carter has not weakened the century-old link between his family and the salt industry is found in the fact that employed with him in the same works are seven sons, one daughter, two grandsons and eleven nephews and nieces—a record it would be hard to equal in any sphere of British industry!

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MOSQUITO NIGHT FIGHTER (courtesy de Havilland Aircraft Co., Ltd)

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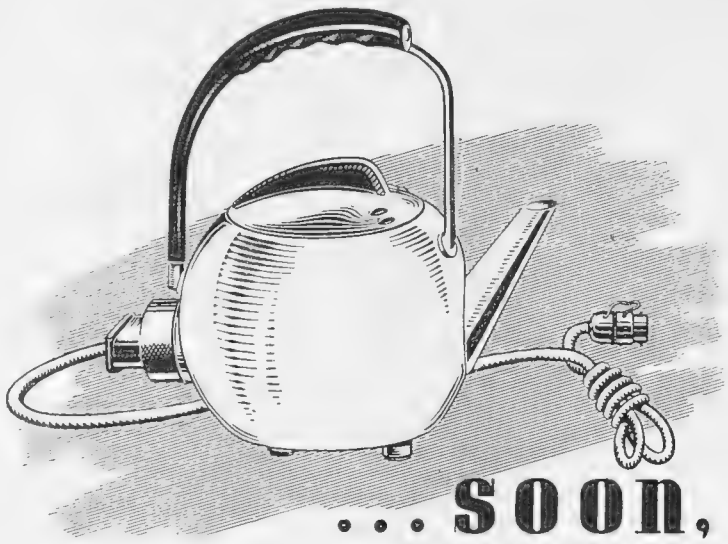

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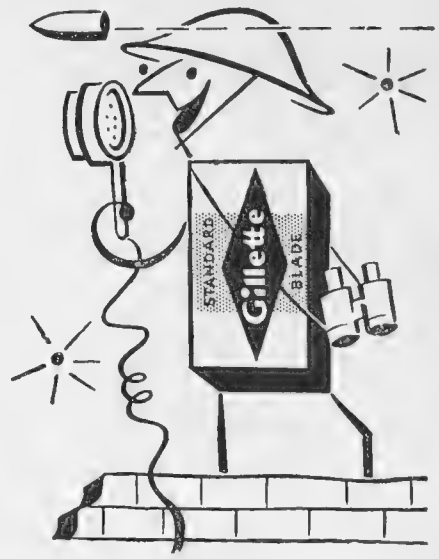

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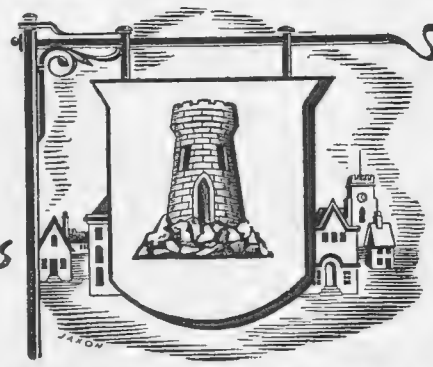

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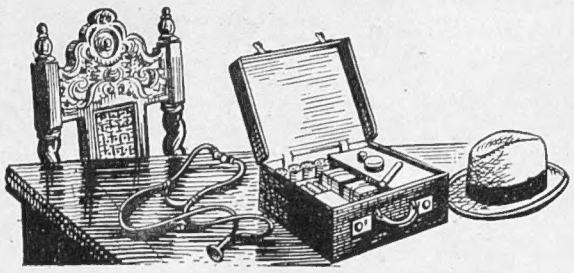

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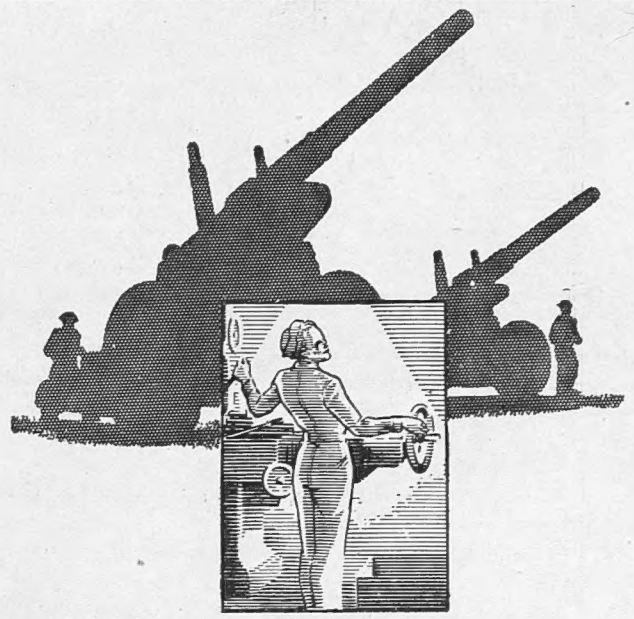

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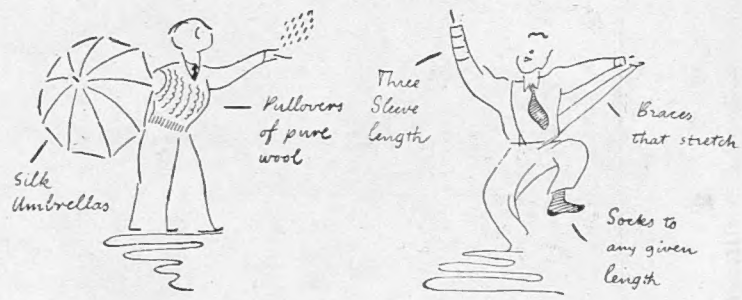

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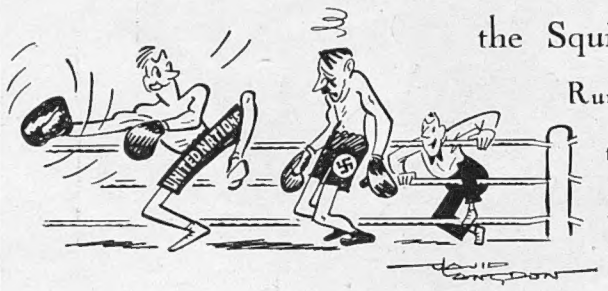

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WALDRONHYRST, SOUTH CROYDON
A residential hotel which provides safety and satisfaction, within ½-hour of West End. But "seeing is believing." 'Phone CROydon 2641, and arrange to view the 40 rooms and the 6 acres of grounds. Terms from 4 gns.

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A warm, comfortable, country house hotel. One minute's walk from Leatherhead Station with direct train service to Victoria or Waterloo. A convenient Dormy House for the London war-worker. No accommodation available at present. Telephone: 2271.

MOOR HALL HOTEL & COUNTRY CLUB
NINFIELD, Sussex
Here, 250 ft. up, facing due south, you can get a break from war routine. Fresh produce from our own farm and gardens. Riding fishing and rough shooting. Trains met Bexhill or Battle. From 5 gns. Tel.: Ninfield 330.

THE COUNTY HOTEL, ROTHBURY
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For bracing air and glorious scenery. Good Food, Own Gardens. Fully Licensed, H. and C. all bedrooms, Cocktail Lounge. Telephone and Telegrams: Rothbury 6.
A.A.*** R.A.C. and Veteran Motorists.

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The best of English food, and every modern comfort, in a friendly old Devon Manor House. Bracing climate, attractive countryside. Cocktail Bar, Squash Court, Hard Tennis Court, Billiards with riding and fishing near by. Terms from 7 gns. a week inclusive. 'Phone: Whiddon Down 205

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And here is peace. The hotel faces the sun and the South. It stands in a sheltered, health-giving position in 60 acres of park land, immune from all traffic noises; admirably adapted for long-period stays. A FEW GOOD ROOMS ARE AVAILABLE. Tun. Wells 1911.

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There are occasional bedroom vacancies and always a chance of good food and good wine if you will but 'phone beforehand Windsor 1354. Luncheons 5s. Dinners 5s., and 2s. 6d. House charge.

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The Brassiere with the Velvet Grip—Beginning as it does with figure-correction, the science of style has no greater hand-maid than V.G. Foundation garments. That is whispered wisdom among well-dressed women of to-day

V.G. Velvet Grip
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If you have any
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please make it last. If carefully used, a little goes a long way. After use the stopper should be tightly closed to avoid evaporation. Production will be resumed as soon as conditions permit

VAPEX . . . for Colds

A Drop on your Handkerchief

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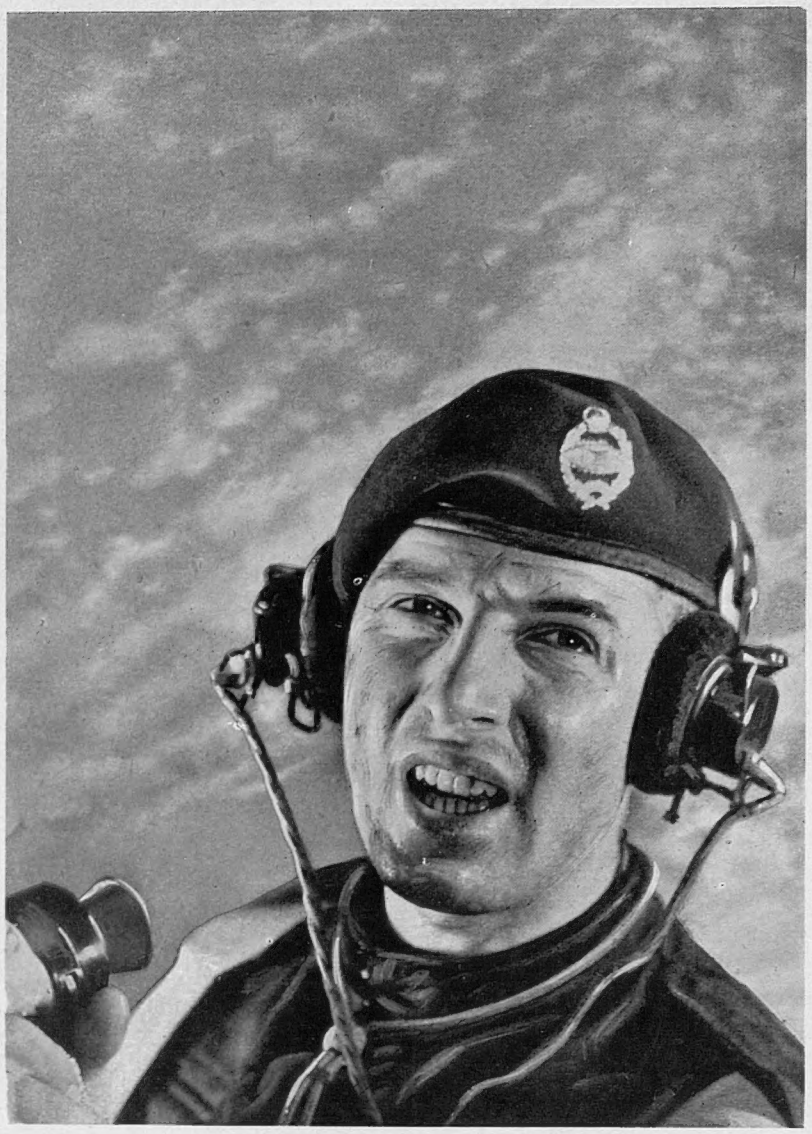
Vale of Bardsley, Lancs., England



"It's no picnic out here.

So don't ease up

on those War Savings

back home."

LET'S SAVE AS HARD AS THEY FIGHT

Issued by the National Savings Committee

Sparklets
(REGD. TRADE MARK)

All available supplies of SPARKLETS BULBS are being distributed as equitably as possible. For the present, please "go easy with the soda" and return empty Bulbs promptly to your usual supplier.

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embodying the manufacturing experience of eighty years

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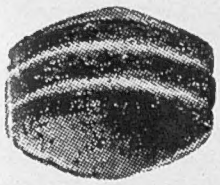

Size of fuel
1¾" long × 1¼" wide
Regd. Designs 838903-825610

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PHURNACITE

THE 'SMOKELESS' FUEL

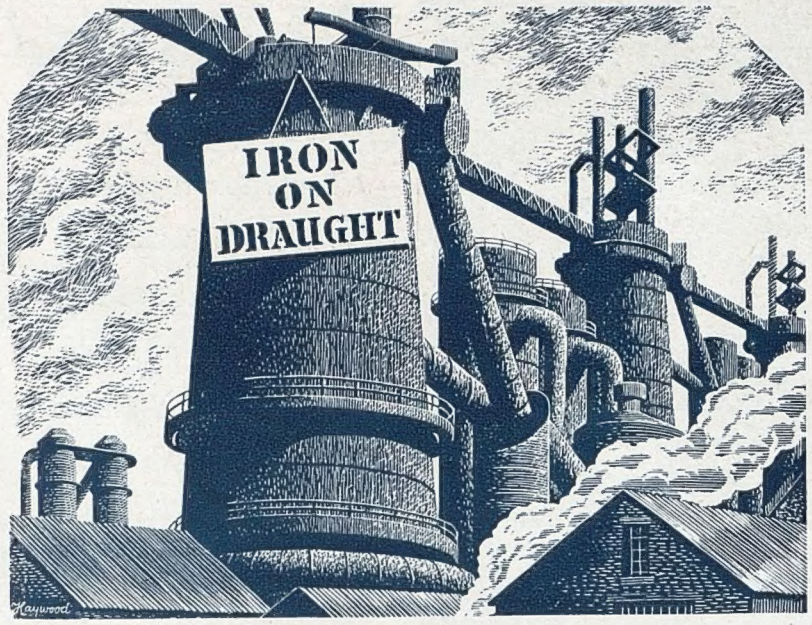
It is regretted that your Coal Merchant may be unable to supply you with PHURNACITE. Retail Coal Merchants are doing everything possible to ensure fair distribution of the limited supplies. Owners of Heat Storage Cookers will as far as practicable be given preference.

IF YOUR TAILOR CAN SUPPLY YOU WITH

Sportex

YOUR SUIT WILL BE MADE OF
SCOTLAND'S HARDEST WEARING CLOTH

S.10



MOLTEN metal is very hot, as you will know if you have ever seen a blast furnace "drawn." "Hot enough for anything" you would say, but you would be wrong, for sometimes it solidifies on meeting the comparatively cold air outside the furnace and so causes a stoppage in the tapping hole. The quickest and easiest way of clearing it is to *burn* the solidifying metal away with high pressure oxygen. That is why in modern iron and steel works you will find oxygen laid on to a convenient point near each blast furnace and, whenever the furnace is being drawn, an operator ready to use the "oxygen lance," if the metal does not flow freely. This is but one of many examples of how the liquid oxygen and compressed gas industry helps to speed things up in the making and manipulating of iron and steel.

THE BRITISH OXYGEN CO. LTD., LONDON BOC

"BLACK & WHITE"

'Time for Bed'

When it is bed-time, it is also time to take a glass of "BLACK & WHITE". This will ensure a quiet and refreshing sleep and soothe the worries of these trying times.

"It's the Scotch!"

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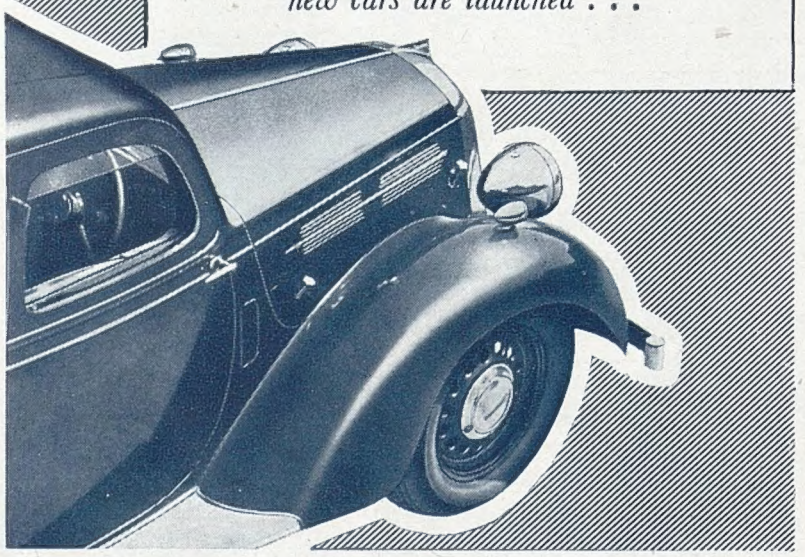
Remembered with satisfaction

Anticipated with pleasure!

Standard are all out on war production now, but the time will come when their new cars are launched . . .



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The Miles Magister, known in pre-war days throughout the world as "the first basic trainer of the new era," and the Miles Master, since the war the standard advanced trainer for fighter pilots of the R.A.F., are but two of the notable stepping stones in the development of Miles Aircraft, which, new in conception and design, will lead on the Civil air routes of the future.

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